ZXR10 2920/2928/2952 Access Switch

User Manual (Volume II)

Version 1.0

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About This Manual

Purpose

This manual provides procedures and guidelines that support the ZXR102920/2928/2952.

Intended Audience

This manual is intended for engineers and technicians who perform operation on Layer 2 switches.

Prerequisite Skill and Knowledge

To use this document effectively, users should have a general understanding of Layer 2 Switches and protocols. This is Volume 2 which is based on Commands. Familiarity with the following is helpful:

- Virtual Local Area Network
- Link Aggregation Control Protocol
- Spanning Tree Protocol
- Access Control List

What Is in This Manual

This manual contains the following chapters:

TABLE 1 CHAPTER SUMMARY

Chapter	Summary
Chapter 1, Management Commands	This chapter introduces the file system commands of ZXR102920/2928/2952.
Chapter 2, File System	This chapter introduces the file system commands of ZXR102920/2928/2952.
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Chapter 4, Port Mirror	This chapter introduces port mirror configuration commands of ZXR102920/2928/2952.
Chapter 5, VLAN Configuration	This chapter introduces VLAN configuration commands of ZXR102920/2928/2952.
Chapter 6, MAC Configuration	This chapter introduces MAC configuration commands of ZXR102920/2928/2952.
Chapter 7, LACP Configuration	This chapter introduces LACP configuration commands of ZXR102920/2928/2952.
Chapter 8, IGMP Snooping	This chapter introduces IGMP Snooping commands of ZXR102920/2928/2952.
Chapter 9, IPTV Configuration	This chapter introduces IPTV configuration commands of ZXR102920/2928/2952.
Chapter 10, MSTP Configuration	This chapter introduces MSTP configuration commands of ZXR102920/2928/2952.
Chapter 11, ACL Configuration	This chapter introduces ACL configuration commands of ZXR102920/2928/2952.
Chapter 12, QoS Configuration	This chapter introduces QoS configuration commands of ZXR102920/2928/2952.
Chapter 13, PVLAN Configuration	This chapter introduces PVLAN configuration commands of ZXR102920/2928/2952.
Chapter 14, RELAY Configuration	This chapter introduces RELAY configuration commands of ZXR102920/2928/2952.
Chapter 15, Layer-3 Configuration	This chapter introduces Layer-3 configuration commands of ZXR102920/2928/2952.
Chpater 16, Network Access Service (NAS) Configuration	This chapter introduces Network Access Service (NAS) configuration commands of ZXR102920/2928/2952.
Chapter 17, QinQ Configuration	This chapter introduces QinQ configuration commands of ZXR102920/2928/2952.
Chapter 18, Syslog Configuration	This chapter introduces Syslog configuration commands of ZXR102920/2928/2952.
Chapter 19, NTP Configuration	This chapter introduces NTP configuration commands of ZXR102920/2928/2952.
Chapter 20, GARP/GVRP Configuration	This chapter introduces GARP/GVRP commands of ZXR102920/2928/2952.
Chapter 21, DHCP Configuration	This chapter introduces DHCP configuration commands of

Chapter	Summary
Chapter 22, Remote-Access Configuration	This chapter introduces VBAS configuration commands of ZXR102920/2928/2952.
Chapter 23, SSH Configuration	This chapter introduces SSH configuration commands of ZXR102920/2928/2952.
Chapter 24,SNMP Configuration	This chapter introduces SNMP configuration commands of ZXR102920/2928/2952.
Chapter 25, RMON Configuration	This chapter introduces RMON configuration commands of ZXR102920/2928/2952.
Chapter 26, Group Management Configuration	This chapter introduces Group Management configuration commands of ZXR102920/2928/2952.
Chapte 27, Web Configuration	This chapter introduces Web configuration commands of ZXR102920/2928/2952.
Chapter 28, Single-port Loop Detection Test	This chapter introduces Single-port Loop Detection Test commands of ZXR102920/2928/2952.
Chapter 29, SQinQ Configuration	This chapter introduces SQinQ commands of ZXR102920/2928/2952.

Conventions

Typographical Conventions

ZTE documents employ the following typographical conventions.

TABLE 2 TYPOGRAPHICAL CONVENTIONS

Typeface	Meaning
Italics	References to other Manuals and documents.
“Quotes”	Links on screens.
Bold	Menus, menu options, function names, input fields, radio button names, check boxes, drop-down lists, dialog box names, window names.
CAPS	Keys on the keyboard and buttons on screens and company name.
`Constant width`	Text that you type, program code, files and directory names, and function names.

Mouse Operation Conventions

TABLE 3 MOUSE OPERATION CONVENTIONS

Typeface	Meaning
Click	Refers to clicking the primary mouse button (usually the left mouse button) once.
Double-click	Refers to quickly clicking the primary mouse button

Typeface	Meaning
	(usually the left mouse button) twice.
Right-click	Refers to clicking the secondary mouse button (usually the right mouse button) once.
Drag	Refers to pressing and holding a mouse button and moving the mouse.

How to Get in Touch

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Chapter 1

Management Commands

Overview

Introduction This chapter introduces the management commands of ZXR102920/2928/2952.

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Parameters Used In Commands

Parameters that are used in ZXR102920/2928/2952 commands are shown in Table 5.

TABLE 5 PARAMETER DESCRIPTION

Parameter	Description
<portlist>	Comma separated port number, port name or port number range. For example: ■ 1, 2, 4-8, 18 ■ p1, pp2, 4-8, port18 p1, pp2 and port18 are names of the ports created by the user.
<vlanlist>	Comma separated VLAN ID, VLAN name or VLAN range. For example: ■ 1-19, 77, 88, 100-900 ■ vlan1, v1, 10, 100-200
<trunklist>	Comma separated trunk ID or trunk range. For example: ■ 1-19, 77, 88, 100-900
<portname>	It indicates that only one port number or port name can be entered at a time.
<vlanname>	It indicates that only one VLAN ID or VLAN name can be entered at a time.
<trunkid>	It indicates that only one trunk ID can be entered at a time.
<xx.xx.xx.xx.xx.xx>	MAC address, for example, 11.22.33.44.55.66.
<A.B.C.D>	IP address, for example, 10.40.47.254
<A.B.C.D/M>	Digits of the IP address and mask. “M” is an integer ranging 1~32, for example, 10.40.47.254/24.
<string>	A character string without space.
<mib-oid>	Variable number in dotted decimal notation, for example, 1.3.6.2.19.2.
<name>	A character string without space.

config group

Syntax **config group**

Purpose Use this command to enter into the global configuration mode.

Mode Global configuration mode

config router

Syntax **config router**

Purpose Use this command to enter into layer 3 configuration mode.

Mode Global configuration mode

config snmp

Syntax **config snmp**

Purpose Use this command to enter into SNMP configuration mode.

Mode Global configuration mode

config tffs

Syntax **Config tffs**

Purpose Use this command to enter into file system configuration mode.

Mode Global configuration mode

create port

Syntax **create port**<name>

Purpose Use this command to create a port name.

Parameter

Parameter	Description
<name>	The name of the port.
<1-52>	The number of the port.

Mode Global configuration mode

Example Create a port named “pt1”.

```
create port 1 pt1
```

create User

Syntax **create user** <name> **admin|guest**

Purpose Use this command to create a management user.

Parameter	Description
admin	Management perview
guest	Access perview
<name>	The name of the management user.

Mode Global configuration mode

Example Create a user named “userx”.

```
create user userx guest
```

delete user

Syntax **delete user** <name>

Purpose Use this command to delete a “manager user”.

Parameter

Parameter	Description
<name>	The name of the management user.

Mode Global configuration mode

Example This example describes how to delete a user name “userx”.

```
delete user userx
```

enable

Syntax **enable**

Purpose Use this command to enter the global configuration mode from the user mode.

Mode User mode

Note: After enable command is executed, system prompts user to enter management password (use adminpass command to set it).

exit

Syntax **exit**

Purpose This command will exit from the current mode to the previous mode.

Mode All modes

hostname

Syntax **hostname** <name>

Purpose Use this command to set or change the host name.

Parameter

Parameter	Description
<name>	Host name.

Mode Global configuration mode

Example This example describes how to set the host name to “hello”.

```
hostname hello
```

line-vty

Syntax **line-vty timeout** <1-1080>

Purpose Use this command to set the timeout time for Telnet user login.

Parameter

Parameter	Description
<1-1080>	Timeout time. The unit is minute. By default, it is 10 minutes.

Mode Global configuration mode

list

Syntax **list**

Purpose Use this command to list all commands available in the current mode.

Mode All modes

ping

Syntax **ping** <A.B.C.D> [<0-65535>] [<28-65535>] [<1-255>] [<0-65535>]

Purpose This command will test the connectivity of the network.

Parameters

Parameter	Description
<A.B.C.D>	Destination IP address
<0-65535>	The times of sending the echo request.
<28-65535>	The packet size of echo request to send
<1-255>	The time to live of echo request to send
<0-65535>	The timeout in seconds to wait for each reply

Mode Global configuration mode

Promptlen

Syntax **Promptlen <0-48>**

Purpose Use this command to set the promptlen of the command line.

Mode Global configuration mode

reboot

Syntax **reboot**

Purpose Use this command to restart switch.

Mode Global configuration mode

rlogin commander

Syntax **rlogin commander**

Purpose Use this command to telnet the switch.

Mode Global configuration mode

rlogin member

Syntax **rlogin member <**1-255**>**

Purpose Use this command to telnet the switch member.

Mode Global configuration mode

Parameter

Parameter	Description
<1-255>	Successive member ID

saveconfig

Syntax **saveconfig**

Purpose Use this command to save configuration mode.

Mode Global configuration mode

set acl-name

Syntax **set acl-name <**1-349**>name <**word**>**

Purpose Use this command to set acl-name.

Mode Global configuration mode

Parameter

Parameter	Description
<1-349>	Acl serial number
<word>	Acl name

Set acl-valid

Syntax **set acl-valid** <*1- 349*> **rule** < *1- 500*>{**active**|**passive**}

Purpose Use this command to set detailed acl rule as active or passive.

Mode Global configuration mode

Parameter

Parameter	Description
<1-349>	Acl serial number
<1-500>	Rule ID
active	**active**
passive	**passive**

set date

Syntax **set date** <yyyy-mm-dd> **time** <hh:mm:ss>

Purpose This command sets date and time.

Parameters

Parameter	Description
<yyyy-mm-dd>	Date (year/month/day).
<hh:mm:ss>	Time (hour/minute/second).

Mode Global configuration mode

Note: After switch is restarted, date and time shall be reconfigured.

set loginauth

Syntax **set loginauth {local|radius}**

Purpose Use this command to set login authentication mode.

Parameters

Parameter	Description
local	Sets local authentication for the login user.
radius	Sets the RADIUS authentication for the login user.

Mode Global configuration mode

set user login-password

Syntax **set user local** <name> **login-password** [<string>]

Purpose Use this command to set user login password.

Parameters

Parameter	Description
<name>	Management user name
<string>	Login password.

Note: When **login-password** is entered directly without a string, it indicates that the login password is set to null. In this case, the Telnet user cannot log in to the system.

Mode Global configuration mode

Example Set the name in user name and login password to “ok”.

```
set user local username login-password ok
```

set user admin-password

Syntax **set user local** <name> **admin-password** [<string>]

Purpose Use this command to set admin password.

Parameters

Parameter	Description
<name>	Management user name
<string>	Management password.

Note: If adminpass is entered directly without a string, it indicates that the management password is set to null.

Mode Global configuration mode

Example Set the name in user name and login management password “ok”.

```
Set user admin admin-password ok
```

set user radius purview

Syntax **set user radius purview admin|guest**

Purpose Use this command to set radius authentication for guest and admin.

Parameters

Parameter	Description
admin	radius user login as an administrator
guest	radius user login as a guest only

Mode Global configuration mode

Example Set the radius authentication for administrator.

```
set user radius purview admin
```

set user radius admin-password

Syntax **set user radius admin-password** [<string>]

Purpose Use this command to set radius authentication for user management password.

Parameters

Parameter	Description
<name>	Management user name
<string>	Management password.

Mode Global configuration mode

Note: When **admin-password** is entered directly without a string, it indicated that the admin password is set to null. All radius authentication users register the use identical password.

Example Set radius authentication user the management password is ok.

```
  set user radius admin-password ok
```

show date-time

Syntax **show date-time**

Purpose Use this command to display current date and time.

Mode All modes

Note If no date and time are configured, the time starts from 2004-07-01 by default.

show line-vty

Syntax **show line-vty**

Purpose Use this command to display telnet timeout setup information.

Mode All modes

show loginauth

Syntax **show loginauth**

Purpose Use this command to display login authentication mode.

Mode All modes

show memory

Syntax **show memory**

Purpose Use this command to display memory state.

Mode All modes

show running-config

Syntax **show running-config [toFile]**

Purpose Use this command to display all current non-default configurations of the system.

Parameter

Parameter	Description
[toFile]	Outputs the **show running-config** result to the config.txt file.

Mode All modes

show sflow

Syntax show sflow

Purpose Use this command to display sflow inspection configuration information.

Mode All modes

show start-config

Syntax **show start-config**

Purpose Use this command to display all non-default configurations of the system saved last time.

Mode All modes

show tech-support

Syntax **show tech-support**

Purpose Use this command to display diagnosis information.

Mode All modes

show tech-support tofile

Syntax **show tech-support tofile**

Purpose Use this command to save diagnosis information.

Mode All modes

show terminal

Syntax **show terminal [log]**

Purpose Use this command to display the monitoring and log information about terminals.

Parameter

Parameter	Description
[log]	Displays log information.

Note: This displays on/off status of the monitor and log.

Mode All modes

show vct

Syntax **show vct port** <portname>

Purpose Use this command to display VCT result of the port.

Parameter

Parameter	Description
<portname>	A port number.

Mode All modes

show user

Syntax **show user**

Purpose Use this command to display information that includes the current user name, which is going to login through Telnet.

Mode All modes

show web

Syntax **show web**

Purpose Use this command to display web information.

Mode Global configure mode

sysLocation

Syntax **sysLocation** <string>

Purpose Use this command to set the location information about the switch.

Parameter

Parameter	Description
<string>	Location of the switch.

Mode Global configuration mode

telnet

Syntax **telnet<A.B.C.D>.**

Purpose Use this command to open a Telnet link.

Mode Global configuration modes

Parameter	Description
<A.B.C.D>	The IP address for the telnet.

terminal log

Syntax **terminal log {on|off}**

Purpose Use this command to enable/disable log.

Parameters

Parameter	Description
on	Enables log.
off	Disables log.

Mode Global configuration mode

terminal monitor

Syntax **terminal monitor {on|off}**

Purpose Use this command to enable/disable printing real-time alarm information to terminal.

Parameters

Parameter	Description
on	Enables printing real-time alarm information.
off	Disables printing real-time alarm information.

Mode Global configuration mode

terminal log timer

Syntax **terminal log timer {enable|disable|interval}**

Purpose Use this command to enable/disable/interval log timer.

Parameters

Parameter	Description
enable	Enables the timer
disable	Disables the timer
interval	Time interval

Mode Global configuration mode

terminal log toFile

Syntax **terminal log toFile**

Purpose Use this command to save terminal log information.

Mode Global configuration mode

Version

Syntax **Version**

Purpose Use this command to display system information including version, running time and MAC address of the switch.

Mode Global configuration mode

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Chapter 2

File System

Overview

Introduction This chapter introduces the file system commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 6 TOPICS IN CHAPTER 2

Topics	Page No.
cd	17
copy	18
format	18
ls	18
md	18
remove	19
rename	19
tftp	19

cd

Syntax **cd** {<*name*>| < . . >}

Purpose Use this command to change the current directory.

Parameter

Parameter	Description
<name>	Name of the directory.
<..>	Return to the catalog of the previous layer

Mode File system configuration mode

Example Enter the config directory in the file system.

```
cd config
```

copy

Syntax **copy** <name> <name>

Purpose Use this command to copy a file

Parameter

Parameter	Description
<name>	Name of the source file path/destination file path.

Mode File system configuration mode

Example 1 Copy the v1.txt file in the root directory to the \bak directory.

```
copy v1.txt bak\v1.txt
```

Example 2 Copy the a.txt file in the \\test directory to the \\temp directory.

```
copy \\test\a.txt \\temp\a.txt
```

format

Syntax **format**

Purpose Use this command to format the flash memory.

Mode File system configuration mode

ls

Syntax **ls**

Purpose Use this command to display the current directory list.

Mode File system configuration mode

md

Syntax **md** <name>

Purpose Use this command to create a directory.

Parameter

Parameter	Description
<name>	Name of the directory.

Mode File system configuration mode

Example Create the directory “group”.

```
md group
```

remove

Syntax **remove** <name>

Purpose This command deletes a specified file or directory.

Parameter

Parameter	Description
<name>	Name of the file or directory.

Mode File system configuration mode

Example This example describes how to delete the directory “group”.

```
remove group
```

rename

Syntax **rename** <name> <name>

Purpose Use this command to rename a file.

Parameter

Parameter	Description
<name>	Name of the source file/destination file.,

Mode File system configuration mode

Example This example describes how to rename the configbak.txt file to config.txt.

```
rename configbak.txt config.txt
```

tftp

Syntax **tftp** {<A.B.C.D>|**commander**} {**download|upload**} <name>

Purpose Use this command to download/upload a version through TFTP.

Parameters

Parameter	Description
<A.B.C.D>	IP address of the specified host.
commander	Command switch.
download	Downloads a file from the host to the FLASH memory.
upload	Uploads a file from the FLASH memory to the host.
<name>	Name of the file.

Example This example describes how to download version.o from 10.40.44.167 to the switch.

```
tftp 10.40.44.167 download version.o
```

Chapter 3

Port Configuration

Overview

Introduction This chapter introduces port configuration commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 7 TOPICS IN CHAPTER 3

Topics	Page No.
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set port duplex	25
set port speed	25
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clear port

Syntax **clear port** <portlist> **{name|statistics|description}**

Purpose Use this command to clear the name/statistics data of a port.

Parameters

Parameter	Description
<portlist>	Port list.
name	Clears the name of the port.
statistics	Clears the statistics data of the port.
description	Clears the description of the port.

Mode Global configuration mode

Example This example describes how to clear the names of ports 1, 5, 6, 7 and 11.

```
clear port 1,5-7,11 name
```

create port name

Syntax **create port** <portname> **name** <name>

Purpose Use this command to create a port name.

Parameters

Parameter	Description
<portname>	A port number.
<name>	Port name.

Mode Global configuration mode

Example This example describes how to create the name userx for port 1.

```
create port 1 name userx
```

set port

Syntax **set port** <portlist> **{enable|disable}**

Purpose Use this command to enable/disable a port.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Enables the port.
disable	Disables the port.

Mode Global configuration mode

Example This example describes how to enable ports 1, 5, 6, 7 and 11.

```
set port 1,5-7,11 enable
```

set port auto

Syntax **set port** <portlist> **auto {enable|disable}**

Purpose Use this command to enable/disable the adaptive function of a port.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Enables the adaptive function of the port.
disable	Disables the adaptive function of the port.

Mode Global configuration mode

Example Enable the adaptive function of ports 1, 5, 6, 7 and 11.

```
set port 1,5-7,11 auto enable
```

set port speedadvertise

Syntax **set port** <portlist> **speedadvertise {maxspeed|speed 10|speed 100|speed 1000} {fullduplex|halfduplex}**

Purpose Use this command to set the port speed advertisement.

Parameters

Parameter	Description

Parameter	Description
<portlist>	Port list.
maxspeed	Sets the port speed advertisement to maximum speed.
speed 10	Sets the port speed advertisement to 10 Mbps.
speed 100	Sets the port speed advertisement to 100 Mbps.
speed 1000	Sets the port speed advertisement to 1000 Mbps.
fullduplex	Full duplex mode.
halfduplex	Half duplex mode.

Mode Global configuration mode

set port duplex

Purpose **set port** <portlist> **duplex {full|half}**

Syntax Use this command to set the working mode of a port to full duplex/half duplex.

Parameters

Parameter	Description
<portlist>	Port list.
full	The working mode of a port is full duplex.
half	The working mode of a port is half duplex.

Mode Global configuration mode

Example This example describes the working modes of ports 1, 5, 6, 7 and 11 to full duplex.

```
set port 1,5-7,11 duplex full
```

set port speed

syntax **set port** <portlist> **speed {10|100|1000}**

Purpose Use this command to set the port rate to 10 Mbps/100 Mbps/1000 Mbps.

Parameters

Parameter	Description
<portlist>	Port list.
10	The port rate is 10 Mbps.

Parameter	Description
100	The port rate is 100 Mbps.
1000	The port rate is 1000 Mbps.

Mode Global configuration mode

Example This example describes to set the rate of ports 1, 5, 6, 7 and 11 to 10 Mbps.

```
set port 1,5-7,11 speed 10
```

set port queue-schedule

Syntax **set port** <*portlist*> **queue-schedule** { **WRR0 |SP |WRR1-SP |WRR2-SP** }

Purpose Use this command to set port queue-schedule profile.

Parameter

Parameter	Description
SP	Queue 3,2,1,0 all adopt SP mode
WRR0	Queue 3,2,1,0 all adopt WRR mode
WRR1-SP	Queue 3 adopts SP mode,queue 2,1,0 adopt WRR mode
WRR2-SP	Queue 3,2 adopts SP mode,queue1,0 adopt WRR mode
SP	Utterly priority mode
WRR	Add power rotate mode

Mode Global configuration mode

Example This example describes to set the rate of ports 1, 5, 6, 7 and 11 to 10 Mbps.

```
set port 1,5-7,11 queue-schedule SP
```

set port default-priority

Syntax **set port** <*portlist*> **default-priority** <*0-7*>

Purpose Use this command to set port **default-priority**.

Parameter

Parameter	Description
<portlist>	Port list
<0-7>	set port default-priority

Mode Global configuration mode

Example This example describes to set the **default-priority** of ports 1, 5, 6, 7 and 11 to 7.

```
set port 1,5-7,11  default-priority 7
```

port remapping-tag priority

Syntax **set port** <portlist> **remapping-tag**<*0-7*> **priority** <*0-7*>

Purpose Use this command to set the port 802.1p remapping-tag priority.

Parameter

Parameter	Description
<portlist>	Port list
<0-7>	Set remapping priority 0-7
<0-7>	Set remapping priority 0-7

Mode Global configuration mode

set port security

Syntax **set port** <portlist> **security {enable|disable}**

Purpose Use this command to enable/disable port address learning.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Disables port address learning, and does not forward packets.
disable	Enables port address learning and forwards packets.

Mode Global configuration mode

Example This example describes to disable the address learning of ports 1, 5, 6, 7 and 11.

```
set port 1,5-7,11 security enable
```

set port unit-statistics

Syntax **set port** <*portlist*>**unit-statistics**{**enable** |**disable**}

Purpose Use this command to enable/disable port unit-time data statistics.

Parameters

Parameter	Description
<portlist>	Port list.
enable	enable port unit-time data statistics
disable	disable port unit-time data statistics

Mode Global configuration mode

Example This example describes to disable the address learning of ports 1, 5, 6, 7 and 11.

```
set port 1,5-7,11  unit-statistics  enable
```

set port multicast-filter

Syntax **set port** <portlist> **multicast-filter {enable|disable}**

Purpose Use this command to enable/disable the multicast packet filter of a port.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Enables the multicast packet filter, namely, multicast packets are discarded.
disable	Disables the multicast packet filter, namely, multicast packets are forwarded.

Mode Global configuration mode

Example This example describes to set ports 1, 5, 6, 7 and 11 for forwarding multicast packets.

```
set port 1,5-7,11 multicast-filter disable
```

set port description

Syntax **set port** <portname> **description** <string>

Purpose Use this command to set port's description.

Parameters

Parameter	Description

Parameter	Description
<portname> 知足.mp3	Port list
<string>	Description of the port

Mode Global configuration mode

Example This example describes to set port 1 description .

```
set port 1 description  aaaa
```

set port macaddress

Syntax **set port** <portlist> **macaddress** {**on** <1-16>|**off**}

Purpose Use this command to set the MAC address learning number of a port.

Parameters

Parameter	Description
<portlist>	Port list.
<0-16>	The number of learned MAC addresses of the port. “0” indicates that the number is not set.

Mode Global configuration mode

Example This example describes to set port 1 description .

```
set port 1,5-7,11 macaddress 10
```

set port acl

Syntax **set port** <*portlist*> **acl <***acl-number*> {**enable | disable**}

Purpose Use this command to set the acl information of a port.

Parameters

Parameter	Description
Acl-number	Acl instance number,from 1 to 349
Portlist	Port list
Enable	Enable the bind
disable	disable the bind

Mode Global configuration mode

set port vlanjump

Syntax **set port** <*portlist*>**vlanjump** {**enable** [**defaultauthvlan**<*1-4094*>] |**disable**]}

Purpose Use this command to set the acl information of a port.

Parameters

Parameter	Description
defaultauthvlan	Set defaultauthvlan<*1-4094*> to 1
Enable	Enable the vlanjump
disable	disable the vlanjump

Mode Global configuration mode

Example This example describes to set ports 1,5-7,11 vlanjump enable defaultauthvlan 1000.

```
set ports 1,5-7,11 vlanjump enable defaultauthvlan 1000
```

set port trust-up

Syntax **set port** <*portlist*> **trust-up** {**enable | disable**}

Purpose Use this command to set the port 802.1p author priority.

Parameters

Parameter	Description
Portlist	Port list
Enable	Enable the up credit mode of the port
disable	disable the up credit mode of the port

Mode Global configuration mode

set port trust-dscp

Syntax **set port** <*portlist*> **trust-dscp** {**enable | disable**}

Purpose Use this command to set the port credit IP DSCP priority.

Parameter

Parameter	Description
portlist	Port list
enable	Enable the port dscp credit mode
disable	disable the port dscp credit mode

Mode Global configuration mode

Note:In default,the port credits UP.When both are enable,100M port credit UP,1000M port credit DSCP.

set port user-priority

Syntax **set port** <*portlist*> **user-priority** {**enable | disable** }

Purpose Use this command to set the port credit 802.1p author priority.

Parameter

Parameter	Description
portlist	Port list
enable	Enable the port up credit mode
disable	disable the port up credit mode

Mode Global configuration mode

set port dscp-priority

Syntax **set port** <*portlist*> **dscp-priority** {**enable | disable**}

Purpose Use this command to set the port credit IP DSCP priority.

Parameter

Parameter	Description
portlist	Port list
enable	Enable the port dscp credit mode
disable	disable the port dscp credit mode

Mode Global configuration mode

Note:In default,the port credits UP.When both are enable,100M port credit UP,1000M port credit DSCP.

show port

Syntax **show port** [<portlist>]

Purpose Use this command to display port configuration and the working status.

Parameter

Parameter	Description
<portlist>	Port list.

Mode All modes

Example This example displays the configuration and working status of ports 1, 5, 6, 7 and 11.

```
show port 1,5-7,11
```

show port vlan

Syntax **show port** <portlist> **vlan**

Purpose Use this command to display the vlan information about a port.

Parameter

Parameter	Description
<portlist>	Port list.

Mode All modes

Example This example display the vlan of ports 1, 5, 6, 7 and 11.

```
show port 1,5-7,11 vlan
```

show port statistics

Syntax **show port** <portlist> **statistics {1min_unit|5min_unit}**

Purpose Use this command to display port statistics.

Parameters

Parameter	Description
<portlist>	Port list.
1min_unit	Show statistics information of the port in recent 1 min
5min_unit	Show statistics information of the port in recent 5 min

Mode All modes

Example 1 This example displays the statistics data of ports 1, 5, 6, 7 and 11.

```
show port 1,5-7,11 statistics
```

Example 2 This example displays port 3 statistics data in recent 5 minutes.

```
show port 3 statistics 5min_unit
```

show port qos

Syntax **show port** <portlist> **qos**

Purpose Use this command to display the QoS configuration information about a port.

Parameter

Parameter	Description
<portlist>	Port list.

Mode All modes

Example This example displays the QoS configuration data of ports 1, 5, 6, 7 and 11.

```
show port 1,5-7,11 qos
```

show port bandwidth

Syntax **show port** <portlist> **bandwidth session** <*0-3*>

Purpose Use this command to display the bandwidth information about a port.

Parameter

Parameter	Description
<0-3>	Session id
<portlist>	Port list.

Mode All modes

Example This example displays the bandwidth session 3 of ports 1, 5, 6, 7 and 11.

```
show port 1,5-7,11 bandwidth session 3
```

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Chapter 4

Port Mirror

Overview

Introduction This chapter introduces VLAN configuration commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 8 TOPICS IN CHAPTER 4

Topics	Page No.
set mirror add source-port	35
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set mirror add dest-port	36
set mirror delete dest-port	36
Show mirror	37

set mirror add source-port

Syntax **set mirror add source-port** <*portlist*> {**ingress|egress**}

Purpose Use this command to add ingress/egress mirror port .

Parameter

Parameter	Description
<*portlist*>	Port list
ingress	Mirror ingress
egress	Mirror egress

Mode Global configuration mode

Example This example describes how to add egress port 1, 5, 6, 7 and 12.

```
set mirror add source-port 1,5-7,12 egress
```

set mirror delete source-port

Syntax **set mirror delete source-port** <*portlist*> {**ingress|egress**}

Purpose Use this command to delete ingress/egress mirror port .

Parameter

Parameter	Description
<*portlist*>	Port list
ingress	Mirror ingress
egress	Mirror egress

Mode Global configuration mode

Example This example describes how to delete egress port 1, 5, 6, 7 and 12.

```
set mirror delete source-port 1,5-7,12 egress
```

set mirror add dest-port

Syntax **set mirror add dest-port** <*portname*> {**ingress|egress**}

Purpose Use this command to set ingress/egress mirror port .

Parameter

Parameter	Description
<*portname*>	Port list
ingress	Mirror ingress
egress	Mirror egress

Mode Global configuration mode

Example This example describes how to add dest-port 1 ingress.

```
set mirror add dest-port 1 ingress
```

Note: The parameter <portname> ranges 1~20 in ZXR10 2920,1~28 in ZXR10 2928 & 1~52 in ZXR10 2952.Switch supports one ingress dest-port & egress dest-port.

set mirror delete dest-port

Syntax **set mirror delete dest-port** <*portname*> {**ingress|egress**}

Purpose Use this command to set ingress/egress mirror port .

Parameter

Parameter	Description
<*portname*>	Port list
ingress	Mirror ingress

Parameter	Description
egress	Mirror egress

Mode Global configuration mode

Example This example describes how to delete dest-port 1 ingress.

```
set mirror delete dest-port 1 ingress
```

Note: The parameter <portname> ranges 1~20 in ZXR10 2920,1~28 in ZXR10 2928 & 1~52 in ZXR10 2952.Switch supports one ingress dest-port & egress dest-port.

Show mirror

Syntax **show mirror**

Purpose Use this command to show mirror configure information .

Mode Global configuration mode

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Chapter 5

VLAN Configuration

Overview

Introduction This chapter introduces VLAN configuration commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 9 TOPICS IN CHAPTER 4

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clear vlan name	39
create vlan name	40
set port pvid	40
set trunk pvid	41
set vlan	41
set vlan add port	41
set vlan add trunk	42
set vlan delete port	42
set vlan delete trunk	43
set vlan forbid port	43
set vlan permit port	43
set vlan forbid trunk	44
set vlan permit trunk	44
show vlan	45

clear vlan name

Syntax **clear vlan** <vlanlist> **name**

Purpose Use this command to clear VLAN name.

Parameter

Parameter	Description
<vlanlist>	VLAN list.

Mode Global configuration mode

Example This example describes how to clear the names of VLAN 1, 5, 6, 7 and 12.

```
clear vlan 1,5-7,12 name
```

create vlan name

Syntax **create vlan** <1-4094> **name** <string>

Purpose Use this command to create a VLAN name.

Parameters

Parameter	Description
<1-4094>	VLAN ID. The range is 1~4094.
<name>	VLAN name.

Mode Global configuration mode

Example This example describes how to set the name of vlan 1 to group1.

```
create vlan 1 name group1
```

set port pvid

Syntax **set port** <portlist> **pvid** <1-4094>

Purpose Use this command to set the PVID of a port.

Parameters

Parameter	Description
<portlist>	Port list.
<1-4094>	Default VLAN ID. The range is 1~4094.

Mode Global configuration mode

Example This example describes how to set the PVID of ports 1, 5, 6, 7 and 11 to 30.

```
set port 1,5-7,11 pvid 30
```

set trunk pvid

Syntax **set trunk** < trunklist > **pvid** <1-4094>

Purpose Use this command to set the PVID of a trunk.

Parameters

Parameter	Description
< trunklist >	Trunk list.
<1-4094>	Default VLAN ID. The range is 1~4094.

Mode Global configuration mode

Example Use this command to set the PVID of trunk 1, 2 and 3 to 1000.

```
set trunk 1—3 pvid 1000
```

set vlan

Syntax **set vlan** <vlanlist> **{enable|disable}**

Purpose Use this command to enable/disable a VLAN.

Parameters

Parameter	Description
<vlanlist>	VLAN list.
enable	Enables the VLAN.
disable	Disables the VLAN.

Mode Global configuration mode

Example This example describes how to enable VLAN 1, 5, 6, 7 and 12.

```
set vlan 1,5-7,12 enable
```

set vlan add port

Syntax **set vlan** <vlanlist> **add port** <portlist> **[tag|untag]**

Purpose Use this command to add a port to a VLAN.

Parameters

Parameter	Description
<vlanlist>	VLAN list.
<portlist>	Port list.
tag	Attaches a tag.
untag	Does no tag. By default, “untag” is selected.

Mode Global configuration mode

Example This example describes how to add ports 2, 8, 9, 10 and 18 with tag to VLAN 1, 5, 6, 7 and 12.

```
set vlan 1,5-7,12 add port 2,8-10,18 tag
```

set vlan add trunk

Syntax **set vlan** <vlanlist> **add trunk** <trunklist> **[tag|untag]**

Purpose Use this command to add the specified trunk to a VLAN.

Parameters

Parameter	Description
<vlanlist>	VLAN list.
<trunklist>	Trunk list.
tag	Attach a tag.
untag	Does not tag. By default, “untag” is selected.

Mode Global configuration mode

Example This example describes how to add trunk 1 with tag to VLAN 1, 5, 6, 7 and 12.

```
set vlan 1,5-7,12 add trunk 1 tag
```

set vlan delete port

Syntax **set vlan** <vlanlist> **delete port** <portlist>

Purpose Use this command to delete the specified port from a VLAN.

Parameters

Parameter	Description
<vlanlist>	VLAN list.
<portlist>	Port list.

Mode Global configuration mode

Example This example describes how to disable ports 2, 9, 10, 11 and 16 in VLAN 1, 5, 6, 7 and 12.

```
set vlan 1,5-7,12 delete port 2,9-11,16
```

set vlan delete trunk

Syntax **set vlan** <vlanlist> **delete trunk** <trunklist>

Purpose Use this command to delete the specified trunk from a VLAN.

Parameters

Parameter	Description
<vlanlist>	VLAN list.
<trunklist>	Trunk list.

Mode Global configuration mode

Example This example describes how to delete trunk 1 from VLAN 1, 5, 6, 7 and 12.

```
set vlan 1,5-7,12 delete trunk 1
```

set vlan forbid port

Syntax **set vlan** <vlanlist> **forbid port** < portlist >

Purpose Use this command to forbid port from a specified vlan.

Parameters

Parameter	Description
<vlanlist>	VLAN list.
<portlist>	Port list.

Mode Global configuration mode

Example This example describes how to forbid port 1 from VLAN 1 and 5.

```
set vlan 1,5 forbid port 1
```

set vlan permit port

Syntax **set vlan** <vlanlist> **permit port** <portlist>

Purpose Use this command to permit port to VLAN.

Parameters

Parameter	Description
<vlanlist>	VLAN list.
<portlist>	Port list.

Mode Global configuration mode

Example This example describes how to permit port 1 from VLAN 1 and 5.

```
set vlan 1,5 permit port 1
```

set vlan forbid trunk

Syntax **set vlan** <vlanlist> **forbid trunk** <trunklist>

Purpose Use this command to forbid trunk from VLAN.

Parameters

Parameter	Description
<vlanlist>	VLAN list.
<trunklist>	Trunk list.

Mode Global configuration mode

Example This example describes how to forbid trunk 1 from VLAN 1 and 5.

```
set vlan 1,5 forbid trunk 1
```

set vlan permit trunk

Syntax **set vlan** <vlanlist> **permit trunk** <trunklist>

Purpose Use this command to permit trunk to VLAN.

Parameters

Parameter	Description
<vlanlist>	VLAN list.
<trunklist>	Trunk list.

Mode Global configuration mode

Example This example describes how to permit trunk 1 from VLAN 1 and 5.

```
set vlan 1,5 permit trunk 1
```

show vlan

Syntax **show vlan** [<vlanlist>]

Purpose Use this command to display VLAN information.

Parameter

Parameter	Description
<vlanlist>	VLAN list.

Mode All modes

Example 1 This example describes how to display information about all VLANs.

```
show vlan
```

Example 2 This example describes how to display information about VLAN 1, 5, 6, 7 and 12.

```
show vlan 1,5-7,12
```

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Chapter 6

MAC Configuration

Overview

Introduction This chapter introduces MAC configuration commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

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set fdb filter	49
show fdb	49
show fdb agingtime	50
show fdb mac	50
show fdb port	50
show fdb trunk	51
show fdb vlan	51

set fdb add

Syntax **set fdb add** <xx.xx.xx.xx.xx.xx> **vlan** <1-4094> {**port** <portname>|**trunk** <trunkid>}

Purpose Use this command to add a static binding address to the address table.

Parameters

Parameter	Description
<<xx.xx.xx.xx.xx.xx>	MAC address.
vlan <1-4094>	VLAN ID
<portname>	A port number or port name.
< trunkid >	Trunk ID.

Note: The range of parameter <portname> is 1~20 on the ZXR10 2920, 1~28 on the ZXR10 2928,1~52 on the ZXR10 2952

The range of parameter <trunkid> is 1~16.

Mode Global configuration mode

Example 1 This example describes how to add 00.00.00.00.11.22 to the address table, and set the VLAN to 1, the port number to 1.

```
set fdb add 00.00.00.00.11.22 vlan 1 port 1
```

Example 2 Add 00.00.00.00.11.22 to the address table, and set the VLAN to 1, and the port name to “userx”.

```
set fdb add 00.00.00.00.11.22 vlan 1 port userx
```

Example 3 Add 00.00.00.00.11.22 to the address table, and set the VLAN to 1, and trunk to 1.

```
set fdb add 00.00.00.00.11.22 vlan 1 trunk 1
```

set fdb agingtime

Syntax **set fdb agingtime** <40-1260>

Purpose Use this command to set the address aging time. By default, the value is 240.

Parameter

Parameter	Description
<15-3600>	Aging time. The range is 40~1260. The unit is second.

Mode Global configuration mode

Example This example describes how to set the address aging time to 100s.

```
set fdb agingtime 100
```

set fdb delete

Syntax **set fdb delete** <xx.xx.xx.xx.xx.xx> **vlan** <1-4094>

Purpose Use this command to delete a record from the address table.

Parameters

Parameter	Description
<xx.xx.xx.xx.xx.xx>	MAC address.
<1-4094>	VLAN ID. The range is 1~4094.

Mode Global configuration mode

Example This example describes how to delete the fdb entry with the MAC address of 00.00.00.00.11.22 and the FID of 1 from the address table.

```
set fdb delete 00.00.00.00.11.22 vlan 1
```

set fdb filter

Syntax **set fdb filter** <xx.xx.xx.xx.xx.xx> **vlan** <1-4094> < dest_mac| src_mac| both>

Purpose Use this command to set the fdb filter address.

Parameters

Parameter	Description
<<xx.xx.xx.xx.xx.xx>	MAC address.
<1-4094>	VLAN ID
dest_mac	filter destination mac address.
src_mac	filter source mac address
Both	filter both destination and source mac address

Mode Global configuration mode

Example This example describes how to set the fdb filter address to 00.00.00.00.11.22, and the VLAN to 1.

```
set fdb filter 00.00.00.00.11.22 vlan 1 both
```

show fdb

Syntax **show fdb [static|dynamic|filter] [detail]**

Purpose Use this command to display fdb information.

Parameters

Parameter	Description
static	Displays the number of static fdb entries.
dynamic	Displays the number of dynamic fdb entries.
filter	Displays the number of static filter fdb entries.
detail:	Displays details of a type of fdb entries.

Mode All modes

show fdb agingtime

Syntax **show fdb agingtime**

Purpose Use this command to display the aging time of the fdb address table.

Mode All modes

show fdb mac

Syntax **show fdb mac** <xx.xx.xx.xx.xx.xx>

Purpose Use this command to display the fdb information about a MAC address.

Parameter

Parameter	Description
<<xx.xx.xx.xx.xx.xx>	MAC address.

Mode All modes

show fdb port

Syntax **show fdb port** <*portname*> [**detail**]

Purpose Use this command to display the fdb information about a port.

Parameter

Parameter	Description
<portname>	A port number.
detail	display the fdb information about a port

Mode All modes

show fdb trunk

Syntax **show fdb trunk** <trukname>[**detail**]

Purpose Use this command to display the fdb information about a trunk.

Parameter

Parameter	Description
<trunkname>	A trunk number.
detail	display the fdb information about a port

Mode All modes

show fdb vlan

Syntax **show fdb vlan** <vlanname>

Purpose Use this command to display the fdb information about a VLAN

Parameter

Parameter	Description
<vlanname>	A VLAN ID or VLAN name.

Mode All modes

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Chapter 7

LACP Configuration

Overview

Introduction This chapter introduces LACP configuration commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 11 TOPICS IN CHAPTER 6

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show lacp	56
show lacp aggregator	56
show lacp port	57

set lacp

Syntax **set lacp {enable|disable}**

Purpose Use this command to enable/disable the LACP.

Parameters

Parameter	Description
enable	Enables the LACP
disable	Disables the LACP.

Mode Global configuration mode

set lacp aggregator add port

Syntax **set lacp aggregator** <trunkid> **add port** <portlist>

Purpose Use this command to add the specified port to an LACP aggregation group.

Parameters

Parameter	Description
<trunkid>	Aggregation group number.
<portlist>	Port list. Up to four ports can be aggregated.

Mode Global configuration mode

Example This example describes how to add ports 1, 5, 6 and 7 to aggregation group 1.

```
set lacp aggregator 1 add port 1,5-7
```

set lacp aggregator delete port

Syntax **set lacp aggregator** <trunkid> **delete port** <portlist>

Purpose Use this command to delete the specified port from an LACP aggregation group.

Parameters

Parameter	Description
<trunkid>	Aggregation group number.
<portlist>	Port list.

Mode Global configuration mode

Example This example describes how to delete ports 1, 5, 6 and 7 from aggregation group 1.

```
set lacp aggregator 1 delete port 1,5-7
```

set lacp aggregator mode

Syntax **set lacp aggregator** <trunkid> **mode {dynamic|static | mixed** }

Purpose Use this command to set LACP aggregation mode.

Parameters

Parameter	Description
<trunkid>	Aggregation group number.
static	The aggregation mode is static.
dynamic	The aggregation mode is dynamic.
mixed	The aggregation mode is mixed.

Mode Global configuration mode

Example This example describes how to set LACP aggregation mode of aggregation group 1 to “dynamic”.

```
set lacp aggregator 1 mode dynamic
```

set lacp port mode

Syntax **set lacp port** <portlist> **mode {active|passive}**

Purpose Use this command to set LACP port aggregation mode.

Parameters

Parameter	Description
<portlist>	Port list.
active	The LACP port is in active negotiation mode.
passive	The LACP port is in passive negotiation mode.

Mode Global configuration mode

Example This example describes how to set the LACP aggregation mode of ports 1, 5, 6 and 7 to active negotiation mode.

```
set lacp port 1,5-7 mode active
```

set lacp port timeout

Syntax **set lacp port** <portlist> timeout **{long|short}**

Purpose Use this command to set LACP port timeout status.

Parameters

Parameter	Description
<portlist>	Port list.
short	The port is in short timeout.
long	The port is in long timeout.

Mode Global configuration mode

Example This example describes how to set aggregation ports 1, 5, 6 and 7 to long timeout.

```
set lacp port 1,5-7 timeout long
```

set lacp priority

Syntax **set lacp priority** <1-65535>

Purpose Use this command to set LACP priority.

Parameter

Parameter	Description
<1-65535>	Priority. The range is 1~65535. By default, it is 32768.

Mode Global configuration mode

Example This example describes how to set the LACP priority to 100.

```
set lacp priority 100
```

show lacp

Syntax **show lacp**

Purpose Use this command to display LACP configuration information.

Mode All modes

show lacp aggregator

Syntax **show lacp aggregator** [<trunkid>]

Purpose Use this command to display LACP aggregation group information.

Parameter

Parameter	Description
<trunkid>	Aggregation group number.

Mode Global configuration mode

Example 1 This example describes how to display information about all LACP aggregation groups.

```
show lacp aggregator
```

Example 2 This example describes how to display information about LACP aggregation group 1.

```
show lacp aggregator 1
```

show lacp port

Syntax **show lacp port** [<portlist >]

Purpose Use this command to display information about an LACP aggregation port.

Parameter

Parameter	Description
<portlist>	Port list.

Mode All modes

Example 1 This example describes how to display information about all LACP aggregation ports.

```
show lacp port
```

Example 2 This example describes how to use this command to display information about LACP aggregation ports 1, 5, 6 and 7.

```
show lacp port 1,5-7
```

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Chapter 8

IGMP Snooping

Overview

Introduction This chapter introduces IGMP Snooping commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 12 TOPICS IN CHAPTER 7

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set igmp snooping

Syntax **set igmp snooping {enable|disable}**

Purpose Use this command to enable/disable multicast snooping.

Parameters

Parameter	Description
enable	Enables multicast snooping.
disable	Disables multicast snooping.

Mode Global configuration mode

set igmp snooping add vlan

Syntax **set igmp snooping add vlan** <vlanlist>

Purpose Use this command to add a multicast snooping VLAN.

Parameter

Parameter	Description
<vlanlist>	VLAN list.

Mode Global configuration mode

Example This example describes how to add multicast snooping VLAN 1, 5, 6, 7 and 12.

```
set igmp snooping add vlan 1,5-7,12
```

set igmp snooping crossvlan

Syntax **set igmp snooping crossvlan {enable|disable}**

Purpose

Use this command to enable/disable multi-VLAN multicast snooping.

Parameters

Parameter	Description
enable	Enables multi-VLAN multicast snooping.
disable	Disables multi-VLAN multicast snooping.

Mode Global configuration mode

Example This example describes how to enable multi-VLAN multicast snooping.

```
set igmp snooping crossvlan enable
```

set igmp snooping delete vlan

Syntax **set igmp snooping delete vlan** <vlanlist>

Purpose Use this command to delete a multicast snooping VLAN.

Parameter

Parameter	Description
<vlanlist>	VLAN list.

Mode Global configuration mode

Example This example describes how to delete multicast snooping VLAN 1, 5, 6, 7 and 12.

```
set igmp snooping delete vlan 1,5-7,12
```

set igmp snooping fastleave

Syntax **set igmp snooping fastleave {enable|disable}**

Purpose Use this command to enable/disable snooping fastleave.

Parameters

Parameter	Description
enable	Enables fastleave.
disable	Disables fastleave.

Mode Global configuration mode

set igmp snooping last-member-query

Syntax **set igmp snooping last-member-query** <10-250>

Purpose Use this command to set last member query interval.

Parameter

Parameter	Description
<10-250>	Last member query interval. The unit is 1/10 second. By default, it is 10 (1s).

Mode Global configuration mode

Example This example describes how to set last member query interval to 10s.

```
set igmp snooping last-member-query 100
```

set igmp snooping query vlan

Syntax **set igmp snooping query vlan** <vlanlist> **{enable|disable}**

Purpose Use this command to enable/disable multicast polling for a VLAN.

Parameter

Parameter	Description
<vlanlist>	VLAN list. It only includes multicast VLANs.
enable	Enables multicast polling.
disable	Disables multicast polling.

Mode Global configuration mode

Example This example describes how to enable multicast polling for VLAN 1, 7 and 12.

```
set igmp snooping query vlan 1,7,12 enable
```

set igmp snooping query-interval

Syntax **set igmp snooping query-interval** <10-2147483647>

Purpose Use this command to set a query interval.

Parameter

Parameter	Description
<10-2147483647>	The query interval. The unit is 1/10 second. By default, it is 1250 (125s).

Mode Global configuration mode

Example This example describes how to set the query response interval to 12s.

```
set igmp snooping query-interval 1000
```

set igmp snooping response-interval

Syntax **set igmp snooping response-interval** <10-250>

Purpose Use this command to set the query response interval.

Parameter

Parameter	Description
<10-250>	The query response interval. The unit is 1/10 second. By default, it is 100 (10s).

Mode Global configuration mode

Example This example describes how to set the query response interval to 12s.

```
set igmp snooping response-interval 120
```

set igmp snooping timeout

Syntax **set igmp snooping timeout** <100-2147483647> **{host|router}**

Purpose Use this command to set the multicast member/router timeout.

Parameter

Parameter	Description
<100-2147483647>	Timeout time. The unit is 1/10 second. By default, it is 2600 (260s).
host	Sets the member timeout.
router	Sets the router timeout.

Mode Global configuration mode

Example This example describes how to set the multicast member timeout to 100s.

```
set igmp snooping timeout 1000 host
```

set igmp snooping vlan add group

Syntax

Syntax **set igmp snooping vlan** *<1-4094>* **add group** *<A.B.C.D>* [port <portlist> | trunk <trunklist>]

Purpose Use this command to add a static multicast group to the specified VLAN.

Parameters

Parameter	Description
<1-4094>	A VLAN ID or VLAN name.
<A.B.C.D>	IP address. The range is 224.x.x.x~239.x.x.x, excluding 224.0.0.x.

Mode Global configuration mode

Example 1 This example describes how to add the static multicast group 230.40.44.167 to vlan 1.

```
set igmp snooping vlan 1 add group 230.40.44.167
```

Example 2 This example describes how to add the static multicast group 230.40.44.167 to the VLAN named “group1”.

```
set igmp snooping vlan group1 add group 230.40.44.167
```

set igmp snooping vlan delete group

Syntax **set igmp snooping vlan** <1-4094> **delete group** <A.B.C.D>

Purpose Use this command to delete a static multicast group from the specified VLAN.

Parameters

Parameter	Description
<1-4094>	A VLAN ID or VLAN name.
<A.B.C.D>	IP address. The range is 224.x.x.x~239.x.x.x, excluding 224.0.0.x.

Mode Global configuration mode

Example 1 This example describes how to delete the static multicast group 230.40.44.167 from vlan 1.

```
set igmp snooping vlan 1 delete group 230.40.44.167
```

Example 2 This example describes how to delete static multicast group 230.40.44.167 from VLAN named “group1”.

```
set igmp snooping vlan group1 delete group 230.40.44.167
```

set igmp snooping vlan add group [port | trunk]

Syntax **set igmp snooping vlan** <1-4094> **add group** <A.B.C.D> [**port** <portlist> | **trunk** <trunklist>]

Purpose Use this command to bind static multicast group to port/trunk to the specified VLAN.

Parameters

Parameter	Description
<1-4094>	A VLAN ID or VLAN name.
<A.B.C.D>	IP address. The range is 224.x.x.x~239.x.x.x, excluding 224.0.0.x.
<portlist>/<trunklist>	Port list/trunk list

Mode Global configuration mode

Example 1 This example describes how to bind ports 1,2,3,5 and 8 to static multicast group 230.40.44.165 from vlan 1.

```
set igmp snooping vlan 1 add group 230.45.44.165 port 1-3,5,8
```

Example 2 This example describes how to bind trunk 1 and 2 to static multicast group 230.40.44.165 from vlan 1.

```
set igmp snooping vlan group1 add group 230.45.44.165 trunk 1-2
```

set igmp snooping vlan delete group [port | trunk]

Syntax **set igmp snooping vlan** <1-4094> **delete group** <A.B.C.D> [**port** <portlist> | **trunk** <trunklist>]

Purpose Use this command to unbind static multicast group to port/trunk to the specified VLAN.

Parameters

Parameter	Description
<1-4094>	A VLAN ID or VLAN name.
<A.B.C.D>	IP address. The range is 224.x.x.x~239.x.x.x, excluding 224.0.0.x.
<portlist>/<trunklist>	Port list/trunk list

Mode Global configuration mode

Example 1 This example describes how to unbind ports 1,2,3,5 and 8 from static multicast group 230.40.44.165 from vlan 1.

```
set igmp snooping vlan 1 delete group 230.45.44.165 port
1-3,5,8
```

Example 2 This example describes how to unbind trunk 1 and 2 from static multicast group 230.40.44.165 from vlan 1.

```
set igmp snooping vlan 1 delete group 230.45.44.165 trunk
1-2
```

Example 3 This example describes how to delete static multicast group 230.45.44.165 in vlan 1and this results in deleting ports and trunks of the particular group.

```
set igmp snooping vlan 1 delete group 230.45.44.165
```

set igmp snooping vlan add smr [port | trunk]

Syntax **set igmp snooping vlan** <1-4094> **add smr** [**port** <portlist> | **trunk** <trunklist>]

Purpose Use this command to add multicast router port/trunk to a vlan.

Parameters

Parameter	Description
<1-4094>	A VLAN ID or VLAN name.
<portlist>/<trunklist>	Port list/trunk list

Mode Global configuration mode

Example 1 This example describes how to add static multicast router port 2, 8, 9 and 10 to vlan 1.

```
set igmp snooping vlan 1 add smr port 2,8-10,18
```

Example 2 This example describes how to add static multicast router trunk 1 and 2 to vlan 1.

```
set igmp snooping vlan 1 add smr trunk 1-2
```

set igmp snooping vlan delete smr [port | trunk]

Syntax **set igmp snooping vlan** <1-4094> **delete smr** [**port** <portlist> | **trunk** <trunklist>]

Purpose Use this command to delete multicast router port/trunk from a vlan.

Parameters

Parameter	Description
<1-4094>	A VLAN ID or VLAN name.
<portlist>/<trunklist>	Port list/trunk list

Mode Global configuration mode

Example 1 This example describes how to delete static multicast router port 2, 8, 9 10 and 18 to vlan 1.

```
set igmp snooping vlan 1 delete smr port 2,8-10,18
```

Example 2 This example describes how to delete static multicast router trunk 1 and 2 from vlan 1.

```
set igmp snooping vlan 1 delete smr trunk 1-2
```

set igmp snooping add maxnum vlan

Syntax **set igmp snooping add maxnum** <1-256> **vlan <**vlanlist>

Purpose Use this command to bind maximum group number to vlan.

Parameters

Parameter	Description
<1-256>	Max group number
<vlanlist>	VLAN list. It only includes multicast VLANs.

Mode Global configuration mode

Example This example describes how to bind maximum group number 7 to vlan 1,5,6,7, and 12.

```
set igmp snooping add maxnum 7 vlan 1,5-7,12
```

set igmp snooping delete maxnum vlan

Syntax **set igmp snooping delete maxnum vlan** <vlanlist>

Purpose Use this command to remove maximum group number from vlan.

Parameters

Parameter	Description
<vlanlist>	VLAN list. It only includes multicast VLANs.

Mode Global configuration mode

Example This example describes how to remove maximum group number from vlan 1,5,6,7 and 12.

```
set igmp snooping delete maxnum vlan 1,5-7,12
```

set igmp filter

Syntax **set igmp filter {enable|disable}**

Purpose Use this command to enable/disable IGMP filter.

Parameters

Parameter	Description
enable	Enables IGMP filter.
disable	Disables IGMP filter

Mode Global configuration mode

set igmp filter add groupip vlan

Syntax **set igmp filter add groupip** <A.B.C.D> **vlan** <vlanlist>

Purpose Use this command to bind group Ip address of vlan to filter.

Parameters

Parameter	Description
<A.B.C.D>	IP address. The range is 224.x.x.x~239.x.x.x, excluding 224.0.0.x.
<vlanlist>	VLAN list. It only includes multicast VLANs.

Mode Global configuration mode

Example This example describes how to bind group Ip address 230.40.44.167 from vlan 1,7,8,9 and 18.

```
set igmp filter add groupip 230.40.44.167 vlan 1,7-9,18
```

set igmp filter delete groupip vlan

Syntax **set igmp filter delete groupip** <A.B.C.D> **vlan** <vlanlist>

Purpose Use this command to unbind group Ip address of vlan to filter.

Parameters

Parameter	Description
<A.B.C.D>	IP address. The range is 224.x.x.x~239.x.x.x, excluding 224.0.0.x.
<vlanlist>	VLAN list. It only includes multicast VLANs.

Mode Global configuration mode

Example This example describes how to unbind group Ip address 230.40.44.167 from vlan 1,7,8,9 and 18.

```
set igmp filter delete groupip 230.40.44.167 vlan 1,7-9,18
```

set igmp filter add sourceip vlan

Syntax **set igmp filter add sourceip** <A.B.C.D> **vlan** <vlanlist>

Purpose Use this command to bind source Ip address of vlan to filter.

Parameters

Parameter	Description
<A.B.C.D>	IP address. Class is A, B and C.
<vlanlist>	VLAN list. It only includes multicast VLANs.

Mode Global configuration mode

Example This example describes how to bind source Ip address 210.40.44.167 from vlan 1,7,8,9 and 18.

```
set igmp filter add sourceip 210.40.44.167 vlan 1,7-9,18
```

set igmp filter delete sourceip vlan

Syntax **set igmp filter delete sourceip** <A.B.C.D> **vlan** <vlanlist>

Purpose Use this command to unbind source Ip address of vlan to filter.

Parameters

Parameter	Description
<A.B.C.D>	IP address. Class is A, B and C.
<vlanlist>	VLAN list. It only includes multicast VLANs.

Mode Global configuration mode

Example This example describes how to unbind source Ip address 210.40.44.167 from vlan 1,7,8,9 and 18.

```
set igmp filter delete sourceip 210.40.44.167 vlan 1,7-9,18
```

show igmp snooping

Syntax **show igmp snooping**

Purpose Use this command to display multicast snooping configuration.

Mode All modes

show igmp snooping vlan

Syntax **show igmp snooping vlan** [<1-4094> [**host|router**]]

Purpose Use this command to display multicast snooping results.

Parameters

Parameter	Description
<1-4094>	A VLAN ID or VLAN name.
host	Displays the member snooping results.
router	Displays the router snooping results.

Mode All modes

Example 1 This example describes how to display multicast snooping results of all VLANs.

```
show igmp snooping vlan
```

Example 2 This example describes how to display multicast snooping results of vlan 1.

```
show igmp snooping vlan 1
```

Example 3 This example describes how to display multicast snooping results of the VLAN named “group1”.

```
show igmp snooping vlan group1
```

Example 4 This example describes how to display multicast router snooping results of vlan 1.

```
show igmp snooping vlan 1 router
```

show igmp filter

Syntax **show igmp filter**

Purpose Use this command to display IGMP filter information.

Mode All modes

show igmp filter vlan

Syntax **show igmp filter vlan** <1-4094>

Purpose Use this command to display IGMP filter information for a vlan

Parameter

Parameter	Description
<1-4094>	A VLAN ID or VLAN name.

Mode All modes

Example 1 This example describes how to display IGMP filter information of vlan 1.

```
show igmp filter vlan 1
```

Example 2 This example describes how to display IGMP filter information of descriptive vlan filter1.

```
show igmp filter vlan filter1
```

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Chapter 9

IPTV Configuration

Overview

Introduction This chapter introduces IPTV commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

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clear iptv cac-rule

Syntax **clear iptv cac-rule** <rulelist>

Purpose Use this command to cancel channel access control list.

Parameter

Parameter	Description
<rulelist>	A set of rule, list is 1~64

Mode NAS configuration mode

Example This example describes how to delete CAC rule 1.

```
zte(cfg)#config nas
zte(cfg-nas)#clear iptv cac-rule 1
```

clear iptv channel

Syntax **clear iptv channel** <channellist>

Purpose Use this command to chancel channels.

Parameter

Parameter	Description
<channellist>	A set of channels, channels are 0~263

Mode NAS configuration mode

Example This example describes how to delete channel 1.

```
zte(cfg-nas)#clear iptv channel 1
```

clear iptv client

Syntax **clear iptv client** [{**index** <*index*>|**mac** <*HH.HH.HH.HH.HH.HH*>|**port** <*portid*>|**vlan** <*vlanid*>}]

Purpose Use this command to clear IPTV client.

Parameters

Parameter	Description
<*index*>	Index id, index id range is 0~255

Parameter	Description
<*HH.HH.HH.HH.HH.HH*>	Mac address
<*portid*>	Interface number
<*vlanid*>	Vlan id,the range is1-4094

Mode NAS configuration mode

Example This example describes how to clear IPTV client from port 1.

```
zte(cfg)#config nas
zte(cfg-nas)#clear iptv client port 1
```

create iptv cac-rule

Syntax **create iptv cac-rule** <rule-id> [**port** <port-name>] [**vlan** <vlan-id>] [**mac-base**]

Purpose Use this command to create channel access control (CAC) list.

Parameters

Parameter	Description
<client-index>	Index id, index id range is 0~63
<port-name>	Port id
<vlan-id>	Vlan id, Vlan id range is<1-4094>
mac-base	Reporting or leaving based on same bac address

Mode NAS configuration mode

Example This example describes how to create IPTV CAC rule 1 by port 1, in Vlan 1 and based on MAC address.

```
zte(cfg)#config nas
zte(cfg-nas)#create iptv cac-rule 1 port 1 vlan 1 mac-base
```

create iptv channel

Syntax **create iptv channel** {**special** <channel-id> **address** <address> | **general** < channel-id > }

Purpose Use this command to create IPTV special/general channel.

Parameters

Parameter	Description
special <channel-id>	Special channel number, channel range is 0~255
general <channel-id>	General channel number, channel range is 256~263

Parameter	Description
<address>	Multicast address, range is 224.0.0.0-239.255.255.

Mode NAS configuration mode

Example This example describes how to create IPTV special channel 1 with address 224.1.1.1.

```
zte(cfg)#config nas
zte(cfg-nas)#create iptv channel special 1 address 224.1.1.1
```

iptv cac-rule name

Syntax **iptv cac-rule** <rule-list> **name** <rule-name>

Purpose Use this command to set channel access control (CAC) rule name.

Parameters

Parameter	Description
<rulelist>	A set of rule, list is 1~64
<rule-name>	channel access control rule name,length:1-50

Mode NAS configuration mode

Example This example describes how to set cac-rule 1 with name zte.

```
zte(cfg)#config nas
zte(cfg-nas)#iptv cac-rule 1 name zte
```

iptv cac-rule prvcount

Syntax **iptv cac-rule** <rule-list> **prvcount** <preview-count>

Purpose Use this command to set channel access control (CAC) rule preview count.

Parameters

Parameter	Description
<rulelist>	A set of rule, list is 1~64
<preview-count>	channel access control rule preview time, 0~65535

Note: When max prvcount for a rule is not configured, max prvcount of this rule is global max prvcount. Prvcount is the largest prvcount for this rule in one card.

Mode NAS configuration mode

Example This example describes how to assign channel access control (CAC) rule 1 to preview count at 20.

```
zte(cfg)#config nas
zte(cfg-nas)#iptv cac-rule 1 prvcount 20
```

iptv cac-rule prvinterval

Syntax **iptv cac-rule** <rule-list> **prvinterval** <preview-interval>

Purpose Use this command to set channel access control (CAC) rule preview interval.

Parameters

Parameter	Description
<rulelist>	A set of rule, list is 1~64
<preview-interval>	channel access control rule preview interval, 2~65535

Note: When min prvinternal for a rule is not configured, min prvinternal of this rule is global min prvinternal.

Mode NAS configuration mode

Example This example describes how to assign channel access control (CAC) rule 1 to preview interval at 20.

```
zte(cfg)#config nas
zte(cfg-nas)#iptv cac-rule 1 prvinterval 20
```

iptv cac-rule prvtime

Syntax **iptv cac-rule <***rule-list***> prvtime <***seconds***>**

Purpose Use this command to set channel access control (CAC) rule preview time.

Parameters

Parameter	Description
<rulelist>	A set of rule, list is 1~64
<*seconds* >	channel access control rule preview time, 1~65535

Note: When max prvtime for a rule is not configured, max prvtime of this rule is global max prvtime.

Mode NAS configuration mode

Example This example describes how to assign channel access control (CAC) rule 1 to preview time at 20.

```
zte(cfg)#config nas
zte(cfg-nas)#iptv cac-rule 1 prvcount 20
```

iptv cac-rule right

Syntax **iptv cac-rule** <rulelist> **right {order|preview|query}** <channellist>

Purpose Use this command to set channel access control rule right.

Parameters

Parameter	Description
<rulelist>	A set of rule, list is 1~64
<channellist>	A set of channels, channels are 0~263
order	A set of channels
preview	A set of channels
query	A set of channels

Note: One rule only have one right for a channel.

Mode NAS configuration mode

Example This example describes how to assign channel access control (CAC) rule 1 to right preview 1.

```
zte(cfg)#config nas
zte(cfg-nas)#iptv cac-rule 1 right preview 1
```

iptv channel mvlan

Syntax **iptv channel** <channel-list> **mvlan** <vlan-id>

Purpose Use this command to set mvlan.

Parameters

Parameter	Description
<channellist>	A set of channels, channels are 0~263
<mvlan-id>	Mvlan id, 1~4094

Mode NAS configuration mode

Example This example describes how to set IPTV channel 1 in mvlan 100.

```
zte(cfg)#config nas
zte(cfg-nas)#iptv channel 1 mvlan 100
```

iptv channel name

Syntax **iptv channel** < channellist > **name** <channel-name>

Purpose Use this command to set channel name.

Parameters

Parameter	Description

Parameter	Description
<channellist>	A set of channels, channels are 0~263
<channel-name>	Channel name, length 1~50

Mode NAS configuration mode

Example This example describes how to set cctv1 as channel name.

```
zte(cfg)#config nas
zte(cfg-nas)#iptv channel 1 name cctv1
```

iptv control

Syntax **iptv control {enable|disable}**

Purpose Use this command to enable/disable iptv control.

Parameters

Parameter	Description
enable	Enable IPTV control
disable	Disable IPTV control

Mode NAS configuration mode

Example This example describes how to enable IPTV control.

```
zte(cfg)#config nas
zte(cfg-nas)#iptv control enable
```

iptv control login-time

Syntax **iptv control log-time** <*seconds*>

Purpose Use this command to set min time to generate a call detail record.

Parameter

Parameter	Description
< Seconds >	Seconds, 1~65534

Note: When prvtime of user is smaller than smallest login-time, the times of preview can be ignored.

Mode NAS configuration mode

Example This example describes how to set login time to 10 seconds.

```
zte(cfg)#config nas
zte(cfg-nas)#iptv control login-time 10
```

iptv control prvcount count

Syntax **iptv control prvcount count** <preview-count>

Purpose Use this command to set global preview count.

Parameter

Parameter	Description
<preview-count>	Preview count, 0~65535

Note: Global max times of preview are default max times of preview of CAC rule.

Mode NAS configuration mode

Example This example describes how to globally preview count to 20.

```
zte(cfg)#config nas
zte(cfg-nas)#iptv control prvcount count 20
```

iptv control prvcount reset-period

Syntax **iptv control prvcount reset-period** <*seconds* >

Purpose Use this command to set period to reset preview count.

Parameter

Parameter	Description
< Seconds >	Seconds, 1~4294967295

Mode NAS configuration mode

Example This example describes how to set period to reset preview count to 600 seconds.

```
zte(cfg)#config nas
zte(cfg-nas)#iptv control prvcount reset-period 600
```

iptv control prvinterval

Syntax **iptv control prvinterval** < Seconds >

Purpose Use this command to set global preview interval.

Parameter

Parameter	Description
< Seconds >	Seconds, 2~65535

Note: Global min interval of preview is the default min interval of preview of CAC rule.

Mode NAS configuration mode

Example

This example describes how to set global preview interval of 20 seconds.

```
zte(cfg)#config nas
zte(cfg-nas)#iptv control prvinterval 20
```

iptv control prvtime

Syntax **iptv control prvtime** < Seconds >

Purpose Use this command to set global preview time.

Parameter

Parameter	Description
< Seconds >	Seconds, 1~65535

Note: Global max time of preview is the default max time of preview of CAC rule.

Mode NAS configuration mode

Example This example describes to set global preview time to 20 seconds.

```
zte(cfg)#config nas
zte(cfg-nas)#iptv control prvtime 20
```

show iptv cac-rule

Syntax **show iptv cac-rule** [{**id** <rule-id>|**name** <rule-name>}]

Purpose Use this command to display channel access control rule (CAC) by id/name.

Parameters

Parameter	Description
<rule-id>	Rule id, list is 1~64
<rule-name>	channel access control rule name,length:1-50

Mode All modes

Example 1 This example displays CAC.

```
  zte(cfg)#show iptv cac-rule
  MaxRuleNum:256
  CurRuleNum:3
  HisRuleNum:3

  Id    Name             Port           Vlan    Order Prview
Query  Mac-base
  ---- ------------ -----------  -----  ----- -----  -----
-------
  1     zte1             1                       1       1
1       FALSE
  2     zte2             2               1       2       0
1       TRUE
  3     zte3                             2       0       1
FALSE
```

Parameters Description:

Parameter	Description
MaxRuleNum	Max number of rules
CurRuleNum	number of rules which have been configured at current
HisRuleNum	Number of rules which have ever been configured.
Id	ID of rule
Name	Name of rule
Port	Port about rule
Vlan	Vlan about rule
Mac-base	whether to base on port
Order	Number of ordered channels
Prview	Number of previewed channels
Query	Number of channels which take the port about rule as source port.

Example 2 This example displays CAC rule 1.

```
zte(cfg)#show iptv cac-rule id 1
  RuleNo                                                  :1
  UserName           :zte1
  Port                                                     :
Vlan                 :
  MacBase            :FALSE

  MaxPrvCount        :10            MinPrvInterval     :15
  MaxPrvTime         :60            CurPrvCount         :0
  CurOrdUserChanNum :0             HisOrdUserChanNum :0
  CurPrvUserChanNum :0             HisPrvUserChanNum :0
  CurUserChanNum     :0             HisUserChanNum     :0

  Order                                                   :1
Preview             :1
  Query                :1

  Order channels     :1
  Preview channels   :2
  Query channels     :3
```

Parameters Description:

Parameter	Description
UserName	Name of rule
Port	Port about rule
Vlan	Vlan about rule
MacBase	whether to base on port
MaxPrvCount	Max times of preview
MinPrvInterval	Min interval of preview
MaxPrvTime	Max time of preview
CurPrvCount	current times of preview
CurOrdUserChanNum	current number of ordered user channels
HisOrdUserChanNum	number of ordered user channels in history
CurPrvUserChanNum	current number of previewed user channels
HisPrvUserChanNum	number of previewed user channels in history
CurUserChanNum	current number of user channels
HisUserChanNum	number of user channels in history
Order	number of ordered channels
Preview	number of previewed channels
Query	number of channels which can accept query packets

Parameter	Description
Order channels	ID of ordered channels
Preview channels	ID of previewed channels
Query channels	ID of queried channels

show iptv channel

Syntax **show iptv channel** [{id <channel-id>|name <channel-name>}]

Purpose Use this command to display IPTV channel.

Parameters

Parameter	Description
<channel-id>	ID of channel, 0~263
<channel-name>	name of channel, 1~50

Mode All modes

Example This example shows IPTV channel information.

```
zte(cfg)#show iptv channel
  MaxChannelNum:264
  CurChannelNum:3
  HisChannelNum:3
  Id      Name             GroupIp          MVlan
  -----  -------------   -------------  ------
  1       cctv1            224.1.1.1       100
  2       cctv2            224.1.1.2       101
  3       cctv3            224.1.1.3       102
```

Parameters Description:

Parameter	Description
MaxChannelNum	max number of channels which can be configured
CurChannelNum	current number of channels which have been configured
HisChannelNum	number of channels which have ever been configured
Id	ID of channel
Name	name of channel
GroupIp	multicast group address
MVlan	vlan which multicast group belongs to

show iptv client

Syntax **show iptv client** [{**channel** <channel-id>| **index** <client-index> |**name** <user-name>| **mac** <HH.HH.HH.HH.HH.HH>| port <portid>[**vlan** <vlanid>] | **vlan** <vlanid>}]

Purpose Use this command to display IPTC client.

Parameters

Parameter	Description
<channel-id>	ID of channel, 0-263
<client-index>	index of user, 0-63
<user-name>	name of user, 1-50
<HH.HH.HH.HH.HH.HH>	MAC address of user
<portid>	login port of user
<vlanid>	vlan which user belongs to

Mode All modes

Example 1 This example displays IPTV client.

```
zte(cfg)#show iptv client
  MaxClientNum:64
  CurClientNum:1
  HisClientNum:1

  Index    Name                      Rule     Vlan     Port
ChNum
  ------  ---------------  ------  ------  ------  ------
  0         zte1                     1          1          4
1
```

Parameter Description:

Parameter	Description
MaxClientNum	max number of user
CurClientNum	current number of user
HisClientNum	historical number of user
Index	index of user
Name	name of user
Port	login port of user
Vlan	vlan which user belongs to
Rule	ID of rule matching user
ChNum	number of channels which user request to join

Example 2 This example displays IPTC client index 0.

```
zte(cfg)#show iptv client index 0
  Index    :0                          Name  :zte1
  Rule     :1                          Vlan  :1
  Port     :4                          ChNum :1
  Mac      :00.14.2a.22.6d.06      Ip    :10.40.45.30

  Channel  UserType     MultiAddress      ElapsedTime
  -------  ----------  ----------------  --------------
  1        order          224.1.1.1          0:0:4:21
  1        preview       224.1.1.2          0:0:0:20
```

Parameters Description:

Parameter	Description
Index	ID of user
Name	name of user
Port	login port of user
Vlan	vlan which user belongs to
Rule	ID of rule matching user
ChNum	number of channels which user request to join
Channel	ID of channel
UserType	right of user for channel
MultiAddress	multicast address of channel
ElapsedTime	online time

show iptv control

Syntax **show iptv control**

Purpose Use this command to display IPTC control.

Mode All modes

Example This example displays IPTV control.

```
zte(cfg)#show iptv control
  LogTime       :10                   MaxPrvCount   :10
  MinPrvInterval:15                   MaxPrvTime    :60
  ResetPeriod                                         :300
State         :enabled
```

Parameter Description:

Parameter	Description
State	status of IPTV
LogTime	min login time of user
MaxPrvTime	max times of preview
ResetPeriod	period of resetting times of preview
MinPrvInterval	min interval of preview
MaxPrvTime	max time of preview

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Chapter 10

MSTP Configuration

Overview

Introduction This chapter introduces MSTP commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

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clear stp instance

Syntax **clear stp instance** <0-15>

Purpose Use this command to delete an instance.

Parameter

Parameter	Description
<1-15>	Instance number. The range is 0~15.

Mode Global configuration mode

Example This example describes how to delete instance 1.

```
clear stp instance 1
```

clear stp instance port cost

Syntax **clear stp instance** *<0-15>*

Purpose Use this command to clear the instance port cost.

Parameters

Parameter	Description
<1-15>	Instance number. The range is 0~15.

Note:instance 0 cannot be cleared.

Mode Global configuration mode

Example The example describes how to clear instance 1.

```
clear stp instance 1
```

clear stp instance trunk cost

Syntax **clear stp instance**<0-15>**trunk**<trunkid>**cost**

Purpose Use this command to clear the instance trunk cost.

Parameters

Parameter	Description
<0-15>	Instance number. The range is 0~15.
< trunkid >	Trunk ID. The range is 1—16

Mode Global configuration mode

Example The example describes how to clear the cost of trunk 2 cost in instance 1.

```
clear stp instance 1 trunk 2 cost
```

clear stp name

Syntax **clear stp name**

Purpose Use this command to clear STP name.

Mode Global configuration mode

set stp

Syntax **set stp {enable|disable}**

Purpose Use this command to enable/display STP. By default, STP is disabled.

Parameters

Parameter	Description
enable	Enables STP.
disable	Disables STP.

Mode Global configuration mode

set stp agemax

Syntax **set stp agemax** <6-40>

Purpose Use this command to set the STP aging time.

Parameter

Parameter	Description
<6-40>	STP aging time. The unit is second.

Mode Global configuration mode

Example This example describes how to set the STP aging time to 30s.

```
set stp agemax 30
```

set stp edge-port

Syntax **set stp edge-port {add|delete} port** <portlist>

Purpose Use this command to add/delete an STP edge port.

Parameter

Parameter	Description
<portlist>	Port list.

Mode Global configuration mode

Example This example describes how to set port 1 as the STP edge port.

```
set stp edge-port add port 1
```

set stp forceversion

Syntax **set stp forceversion {mstp|rstp|stp}**

Purpose Use this command to set the forced STP type to mstp/rstp/stp.

Parameters

Parameter	Description
mstp	Sets the forced STP type to mstp.
rstp	Sets the forced STP type to rstp.
stp	Sets the forced STP type to stp.

Mode Global configuration mode

Example This example describes how to set the forced STP type to stp.

```
set stp forceversion stp
```

set stp forwarddelay

Syntax **set stp forwarddelay** <4-30>

Purpose Use this command to set the STP forwarding delay.

Parameter

Parameter	Description
<4-30>	STP forwarding delay. The unit is second.

Mode Global configuration mode

Example This example describes how to set the STP forwarding delay to 10s.

```
set stp forwarddelay 10
```

set stp hellotime

Syntax **set stp hellotime** <1-10>

Purpose Use this command to set the STP notification interval.

Parameter

Parameter	Description
<1-10>	STP notification interval. The unit is second.

Mode Global configuration mode

Example This example describes how to set the STP notification interval to 6s.

```
set stp hellotime 6
```

set stp hmd5-digest

Syntax **set stp hmd5-digest {CISCO | HUAWEI}** <0x00..0-0xff..f>

Purpose Use this command to set the hmd5-digest value.

Parameters

Parameter	Description
<0x00..0-0xff..f>	A 32-bit hexadecimal value.
CISCO	CISCO equipment
HUAWEI	HUAWEI equipment

Mode Global configuration mode

set stp hmd5-key

Syntax **set stp hmd5-key {CISCO | HUAWEI}** <0x00..0-0xff..f>

Purpose Use this command to set the hmd5-digest value.

Parameters

Parameter	Description
<0x00..0-0xff..f>	A 32-bit hexadecimal value.
CISCO	CISCO equipment
HUAWEI	HUAWEI equipment

Mode Global configuration mode

set stp hopmax

Syntax **set stp hopmax** <1-40>

Purpose Use this command to set the maximum hop count between any two terminals of the MST.

Parameter

Parameter	Description
<1-40>	Maximum hop count between any two terminals of the MST.

Mode Global configuration mode

Example This example describes how to set the maximum hop count between any two terminals of the MST to 30.

```
set stp hopmax 30
```

set stp instance bridgeprio

Syntax **set stp instance** <0-15> **bridgeprio** <0-61440>

Purpose Use this command to set the instance bridge priority.

Parameters

Parameter	Description
<0-15>	Instance number. The range is 0~15.
<0-61440>	Bridge priority. The range is 0~61440.

Mode Global configuration mode

Note: Priority shall be in multiples of 4096. If the inputted value is not in multiples of 4096, the system automatically converts the priority value to the nearest multiple of 4096.

Example This example describes how to set the bridge priority in instance 1 to 4096.

```
set stp instance 1 bridgeprio 4096
```

set stp instance port cost

Syntax **set stp instance** <0-15> **port** <portname> **cost** <1-200000000>

Purpose Use this command to set the instance port cost.

Parameters

Parameter	Description
<0-15>	Instance number. The range is 0~15.
<portname>	A port number.
<1-200000000>	Post cost.

Mode Global configuration mode

Example This example describes how to set the cost of port 1 in instance 1 to 20000.

```
set stp instance 1 port 1 cost 20000
```

set stp instance port priority

Syntax **set stp instance** <0-15> **port** <portname> **priority** <0-255>

Purpose Use this command to set the instance port priority.

Parameters

Parameter	Description
<0-15>	Instance number. The range is 0~15.
<portname>	A port number.
<0-255>	Priority.

Mode Global configuration mode

Example This example describes how to set the priority of port 1 in instance 1 to 100.

```
set stp instance 1 port 1 priority 100
```

set stp instance port root-guard

Syntax **set stp instance** <0-15> **port** <portname> **root-guard{enable|disable}**

Purpose Use this command to set port root guard for STP instance.

Parameters

Parameter	Description
<0-15>	Instance number. The range is 0~15.
<portname>	A port number.
enable	Enables root-guard
disable	Disables root-guard

Mode Global configuration mode

Example 1 This example describes how to set STP instance 1 of port 1 to enable root guard.

```
set stp instance 1 port 1 root-guard enable
```

Example 2 This example describes how to set STP instance 1 of port 1 to disable root guard.

```
set stp instance 1 port 1 root-guard disable
```

set stp instance port loop-guard

Syntax **set stp instance** <0-15> **port** <portname> **loop-guard{enable|disable}**

Purpose Use this command to set port loop guard for STP instance.

Parameters

Parameter	Description
<0-15>	Instance number. The range is 0~15.
<portname>	A port number.
enable	Enables loop-guard
disable	Disables loop-guard

Mode Global configuration mode

Example 1 This example describes how to set STP instance 1 of port 1 to enable loop guard.

```
set stp instance 1 port 1 loot-guard enable
```

Example 2 This example describes how to set STP instance 1 of port 1 to disable loop guard.

```
set stp instance 1 port 1 loop-guard disable
```

set stp instance trunk cost

Syntax **set stp instance** <0-15> **trunk** < trunkid > **cost** <1-200000000>

Purpose Use this command to set the instance trunk cost.

Parameters

Parameter	Description
<0-15>	Instance number. The range is 0~15.
< trunkid >	Trunk ID.
<1-200000000>	Trunk cost.

Mode Global configuration mode

Example This example describes how to set the cost of trunk1 in instance 1 to 20000.

```
set stp instance 1 trunk 1 cost 20000
```

set stp instance trunk priority

Syntax **set stp instance** <0-15> **trunk** < trunkid > **priority** <0-255>

Purpose Use this command to set the instance trunk priority

Parameters

Parameter	Description
<0-15>	Instance number. The range is 0~15.
< trunkid >	Trunk ID.
<0-255>	Priority.

Mode Global configuration mode

Example Set the priority of trunk 1 in instance 1 to 100.

```
set stp instance 1 trunk 1 priority 100
```

set stp instance trunk root-guard

Syntax **set stp instance** <0-15> **trunk** <trunkid> **root-guard{enable|disable}**

Purpose Use this command to set trunk root guard for STP instance.

Parameters

Parameter	Description
<0-15>	Instance number. The range is 0~15.
< trunkid >	Trunk ID.
enable	Enables root-guard
disable	Disables root-guard

Mode Global configuration mode

Example 1 This example describes how to set STP instance 1 of trunk 1 to enable root guard.

```
set stp instance 1 trunk 1 root-guard enable
```

Example 2 This example describes how to set STP instance 1 of trunk 1 to disable root guard.

```
set stp instance 1 trunk 1 root-guard disable
```

set stp instance trunk loop-guard

Syntax **set stp instance** <0-15> **trunk** <trunkid> **loop-guard{enable|disable}**

Purpose Use this command to set trunk loop guard for STP instance.

Parameters

Parameter	Description
<0-15>	Instance number. The range is 0~15.
< trunkid >	Trunk ID.
enable	Enables loop-guard
disable	Disables loop-guard

Mode Global configuration mode

Example 1 This example describes how to set STP instance 1 of trunk 1 to enable loop guard.

```
set stp instance 1 trunk 1 loop-guard enable
```

Example 2 This example describes how to set STP instance 1 of trunk 1 to disable loop guard.

```
set stp instance 1 trunk 1 loop-guard disable
```

set stp instance vlan

Syntax **set stp instance** <0-15>**[add|delete] vlan** <vlanlist>

Purpose Use this command to set the mapping relationship between the VLAN and instance.

Parameters

Parameter	Description
<1-15>	Instance number. The range is 0~15.
<vlanlist>	VLAN list.

Mode Global configuration mode

Example This example describes how to set the mapping relationship among instance 1 and vlan 1, 5, 6, 7 and 12.

```
set stp instance 1 add vlan 1,5-7,12
```

set stp name

Syntax **set stp name** <name>

Purpose Use this command to set an MST area name.

Parameter

Parameter	Description
<name>	MST area name.

Mode Global configuration mode

Example This example describes how to set the MST area name to education.

```
set stp name education
```

set stp port

Syntax **set stp port** <portlist> **{enable|disable}**

Purpose Use this command to enable/disable STP on a port.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Enables STP.
disable	Disables STP.

Mode Global configuration mode

set stp port linktype

Syntax **set stp port** <portlist> **linktype {point-point|shared}**

Purpose Use this command to set the port connection type.

Parameters

Parameter	Description
<portlist>	Port list.
point-point	The port connection type is point-to-point.
shared	The port connection type is shared

Mode Global configuration mode

set stp port packettype

Syntax **set stp port** <portlist> **packettype {IEEE|CISCO|HUAWEI|HAMMER| extend }**

Purpose Use this command to set the port packet type.

Parameters

Parameter	Description
<portlist>	Port list.
IEEE	IEEE mode.
CISCO	CISCO mode.

Parameter	Description
HUAWEI	Huawei mode.
HAMMER	Harbour mode.

Mode Global configuration mode

set stp port pcheck

Syntax **set stp port** <portlist> **pcheck**

Purpose Use this command to check STP port protocol type.

Parameter

Parameter	Description
<portlist>	Port list.

Mode Global configuration mode

set stp port bpdu-guard

Syntax **set stp port** <portlist>**bpdu-guard{enable|disable}**

Purpose Use this command to enable/disable BPDU guard.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Enables BPDU.
disable	Disables BPDU.

Mode Global configuration mode

set stp bpdu_interval

Syntax **set stp bpdu_interval** <10-65535>

Purpose Use this command to set STP BPDU guard interval.

Parameter

Parameter	Description
<1-65535>	BPDU guard interval(second),default:100

Mode Global configuration mode

set stp relay

Syntax **set stp relay {enable|disable}**

Purpose Use this command to enable/disable STP Relay.

Parameters

Parameter	Description
enable	Enables STP Relay
disable	Disables STP Relay

Mode Global configuration mode

set stp revision

Syntax **set stp revision** <0-65535>

Purpose Use this command to set the MST version number.

Parameter

Parameter	Description
<0-65535>	MST version number. The value range is 0~65535.

Mode Global configuration mode

Example This example describes how to set the MST version number to 10.

```
set stp revision 10
```

set stp trunk

Syntax **set stp trunk** <trunklist > **{enable|disable}**

Purpose Use this command to enable/disable STP on a trunk.

Parameters

Parameter	Description
< trunkid >	Trunk ID.
enable	Enables STP.
disable	Disables STP.

Mode Global configuration mode

set stp trunk linktype

Syntax **set stp trunk** <trunklist > **linktype {point-point|shared}**

Purpose Use this command to set the trunk connection type.

Parameters

Parameter	Description
< trunkid >	Trunk ID.
point-point	The trunk connection type is point-to-point.
shared	The trunk connection type is shared.

Mode Global configuration mode

set stp trunk packettype

Syntax **set stp trunk** <trunklist > **packettype**

Purpose Use this command to the set trunk packet type.

Parameters

Parameter	Description
< trunkid >	Trunk ID
IEEE	IEEE mode.
CISCO	CISCO mode.
HUAWEI	Huawei mode.
HAMMER	Harbour mode.
extend	STP trunk packettype extended

Mode Global configuration mode

show stp

Syntax **show stp**

Purpose Use this command to display STP information.

Mode All modes

show stp instance

Syntax **show stp instance** [<0-15>]

Purpose Use this command to display STP instance information.

Parameter

Parameter	Description
<0-15>	Instance number. The range is 0~15.

Mode All modes

Example 1 This example describes how to display information about all STP instances.

```
show stp instance
```

Example 2 This example describes how to display information about STP instance 1.

```
show stp instance 1
```

show stp port

Syntax **show stp port** [<portlist>]

Purpose Use this command to display STP port information.

Parameter

Parameter	Description
<portlist>	Port list.

Mode All modes

Example 1 This example describes how to display information about all STP ports.

```
show stp port
```

Example 2 This example describes how to Display information about STP ports 1, 5, 6, 7 and 12.

```
show stp port 1,5-7,12
```

show stp relay

Syntax **show stp relay**

Purpose Use this command to display STP relay information.

Mode All modes

show stp trunk

Syntax **show stp trunk** <trunklist >

Purpose Use this command to display STP trunk information.

Parameter

Parameter	Description
< trunkid >	Trunk ID

Mode All modes

Example This example describes how to display information about STP trunk 1.

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Chapter 11

ACL Configuration

Overview

Introduction This chapter introduces ACL commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

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config acl basic

Syntax **config acl basic number** <acl-number>

Purpose Use this command to configure basic ACL number.

Parameters

Parameter	Description
basic	Basic ACL number
acl-number	set basic acl number, 1～99

Mode Global configuration mode

config acl extend

Syntax **config acl extend number** <acl-number>

Purpose Use this command to configure extend ACL number.

Parameters

Parameter	Description
extend	Extend ACL number
acl-number	set extend acl number, 100～199

Mode Global configuration mode

config acl link

Syntax **config acl link number** <acl-number>

Purpose Use this command to configure link ACL number.

Parameters

Parameter	Description
link	Link ACL number
acl-number	set link acl number, 200～299

Mode Global configuration mode

config acl hybrid

Syntax **config acl hybrid number** <acl-number>

Purpose Use this command to configure hybrid ACL number.

Parameters

Parameter	Description
hybrid	Hybrid ACL number
acl-number	set hybrid acl number, 300～349

Mode Global configuration mode

basic acl rule

Syntax **rule** <rule-id> {**permit | deny**} {<source-ipaddr wildcard> |**any**}[**fragment**]

Purpose Use this command to configure rules of ACL.

Parameters

Parameter	Description
rule-id	specify rule id of ACL, range is 1-100
deny	If condition matched, access will be denied.
permit	If condition matched, access will be permitted.
source-ipaddr	Source ip address of network or host. The 32 bits of the address can be represented in dotted-decimal format.
source-wildcard	Wildcard with 32 bits can be represented in dotted-decimal format. Source ip address 0.0.0.0 and source wildcard 255.255.255.255 can be replaced with keyword **any.**
fragment	If keyword **fragment** is set, the rule will be effective with fragment packets and be ignored by other packets.

Mode ACL configuration mode

extend acl rule

Syntax **rule** <rule_id> {**permit|deny**} {<ip-protocol>**| ip | tcp | udp | icmp | arp**} {<source-ipaddr wildcard> | **any**} [<source-port

sourceport-mask>] {<destination-ipaddr wildcard> | **any**} [<dest-port destport-mask>] [**established | esblishing** | <icmp-type icmp-code>] [**dscp] [fragment**]

Purpose Use this command to configure the rules of ACL.

Parameters

Parameter	Description
rule-id	specify rule id of ACL, range is 1-100
<ip-protocol> **ip** **tcp** **udp** **icmp** **arp**	Type of protocol matched, may be keyword icmp, ip, tcp, udp, or arp and may also be one integer between 0 and 255 which represents number of ip protocol.
deny	If condition matched, access will be denied.
permit	If condition matched, access will be permitted.
source-ipaddr	Source ip address of network or host. The 32 bits of the address can be represented in dotted-decimal format.
source-wildcard	Wildcard with 32 bits can be represented in dotted-decimal format. Source ip address 0.0.0.0 and source wildcard 255.255.255.255 can be replaced with keyword any.
source-port	Source port number. Only when configuring TCP or UDP, it is effective. Range is 0-65535. You can choose a well-known port number in command.
source-portmask	Mask of source port number. Only when configuring TCP or UDP, it is effective. Its range is 0-65535 and can be represented in hex.
destination-ipaddr	Destination ip address matched
destination-wildcard	Wildcard with 32 bits can be represented in dotted-decimal format. Destination ip address 0.0.0.0 and destination wildcard 255.255.255.255 can be replaced with keyword any.
dest- port	Destination port number. Only when configuring TCP or UDP, it is effective. Its range is 0-65535. You can choose a well-known port number in command.
dest-portmask	Mask of destination port number. Only when configuring TCP or UDP, it is effective. Its range is 0-65535 and can be represented in hex.
established	The keyword means that tcp is established passively. Only when configuring TCP, it is effective.

Parameter	Description
esblishing	The keyword means that tcp is established actively. Only when configuring TCP, it is effective.
icmp-type	Protocl type of ICMP. Only when configuring ICMP, it is effective. Its range is 0-254. It is also a well-known protocol type. The icmp-type is represented in number or character. alternate-address echo echo-reply information-reply information-request mask-reply mask-request parameter-problem redirect router-adverstisement router-solicitation source-quench time-exceeded time-range timestamp-reply timestamp-request traceroute unreachable
icmp-code	Code of icmp type. its range is 0-254
dscp	(Optional), Packets can be classified by DSCP whose range is 0-63.
fragment	If keyword fragment is set, the rule will be effective with fragment packets and be ignored by other packets.

Mode ACL configuration mode

link acl rule

Syntax **rule** <rule-id> {**permit | deny**} { **ip | arp | other | any**} [<**ether-type** protocol-number >] [<dsap-ssap>] [<cos>] [<source-vlanid>] {<source-mac wildcard> | any |<destination-mac wildcard> | **any**}

Purpose Use this command to configure the rules of ACL.

Parameters

Parameter	Description
rule-id	Specify the rule id of ACL, range is 1-500

Parameter	Description
ip **arp** **other** **any**	Protocol type of Ethernet frame, may be arp , ip , other, or any. Keyword other means the protocol types except ip and arp. If choosing the keyword other, you can specify layer-2 protocol type or 802.3 DSAP and SSAP. Keyword any means any Ethernet protocol type.
deny	If condition matched, access will be denied.
permit	If condition matched, access will be permitted.
protocol-number	Layer-2 protocol type, its range is 1501-65535. Only when choosing keyword other, the option exists.
dsap-ssap	802.3DSAP and SSAP, its range is 0-65535. Only when choosing keyword other, the option exists.
cos	802.1p precedence, Its range is 0-7
source-vlanid	Source vlan-id of packets
source-mac	Source mac address of packets. Any source mac address can be replaced with keyword any.
source-mac wildcard	Wildcard of source mac address of packets
destination-mac	Destination mac address of packets. Any destination mac address can be replaced with keyword any.
destination-mac wildcard	Wildcard of destination mac address of packets

Mode ACL configuration mode

hybrid acl rule

Syntax **rule** <rule-id> {**permit|deny**} {< ip-protocol> | **ip | tcp | udp| arp|any**} {<source-ipaddr wildcard>|any} [<source-port sourceport-mask>] {<destination-ipaddr wildcard> | any} [<dest-port destport-mask>] [<dscp>] [**fragment**] [<**ether-type** proto-number>] [<cos>] [<source-vlanId>] [<source-mac wildcard >| **any**] [<destination-mac wildcard>| **any**]

Purpose Use this command to configure the rules of ACL.

Parameters

Parameter	Description
rule-id	specify rule id of ACL, range is 1-500
ip-protocol **ip** **tcp**	Type of protocol matched, may be keyword ip, tcp, udp, or arp and also may be one integer between 0 and 255 which

Parameter	Description
udp **arp** **any**	represents number of ip protocol. Keyword any means ignore IP protocol type.
deny	If condition matched, access will be denied.
permit	If condition matched, access will be permitted.
source-ipaddr	Source ip address of network or host. The 32 bits of the address can be represented in dotted-decimal format.
source-wildcard	Wildcard with 32 bits can be represented in dotted-decimal format. Source ip address 0.0.0.0 and source wildcard 255.255.255.255 can be replaced with keyword **any.**
source-port	Source port number. Only when configuring TCP or UDP, it is effective. Range is 0-65535. You can choose a well-known port number in command.
source-portmask	Mask of source port number. Only when configuring TCP or UDP, it is effective. Its range is 0-65535 and can be represented in hex.
destination-ipaddr	destination ip address matched
destination-wildcard	Wildcard with 32 bits can be represented in dotted-decimal format. Destination ip address 0.0.0.0 and destination wildcard 255.255.255.255 can be replaced with keyword **any.**
dest-port	Destination port number. Only when configuring TCP or UDP, it is effective. Its range is 0-65535. You can choose a well-known port number in command.
dest-portmask	Mask of destination port number. Only when configuring TCP or UDP, it is effective. Its range is 0-65535 and can be represented in hex.
dscp	(Optional), Packets can be classified by DSCP whose range is 0-63.
protocol-number	Layer-2 protocol type, its range is 1501-65535.
cos	802.1p precedence, Its range is 0-7
fragment	If keyword **fragment** is set, the rule will be effective with fragment packets and be ignored by other packets.
source-vlanId	Source vlan-id of packets
source-mac	Source mac address of packets. Any source mac address can be replaced with keyword any.

Parameter	Description
source-mac wildcard	Wildcard of source mac address of packets
destination-mac	destination mac address of packets. Any destination mac address can be replaced with keyword any.

Mode ACL configuration mode

acl rule move

Syntax **move** <rule-id> {**after | before**} <rule-id>

Purpose Use this command to move ACL rule sequence.

Parameters

Parameter	Description
rule-id	Specify rule id of ACL, range is 1-500.Range of rule id of global ACL is 1-16.
after	Move specified rule after one rule.
before	Move specified rule before one rule.

Mode ACL configuration mode

acl rule clear

Syntax **clear rule** <rule-id>

Purpose Use this command to clear ACL rule.

Parameter

Parameter	Description
rule-id	Specify rule id of ACL, range is 1-500.Range of rule id of global ACL is 1-16.

Mode ACL configuration mode

show acl config

Syntax **show acl config** [<acl-number>|<acl-name>] [**rule** <rule-id> **| permit | deny | active | passive | snmp | command | policy | ports**]

Purpose Use this command to display ACL configuration.

Parameters

Parameter	Description

Parameter	Description
acl-number	Number of ACL instance, its range is 1-349
acl-name	Name of ACL instance
rule-id	Display specified rule of ACL instance.
permit	Display specified rule of ACL instance which is permitted.
deny	Display specified rule of ACL instance which is denied.
active	Display specified rule of ACL instance which is effective now.
passive	Display specified rule of ACL instance which is not effective now.
snmp	Display specified rule of ACL instance which is created by SNMP.
command	Display specified rule of ACL instance which is created by command line interface.
policy	Display specified rule of ACL instance about QOS.
time-range	Display specified rule of ACL instance with time-range.

Mode All modes

acl show binding

Syntax **show acl binding** {**all | port** <portlist> | **trunk** <trunklist> | **vlan** <vlanlist>}

Purpose Use this command to display ACL binding.

Parameters

Parameter	Description
all	Displays all ACL binding, including normal ports, aggregation ports and VLAN
portlist	Displays ACL binding information of specified ports
trunklist	Displays ACL binding information of specified aggregation ports.
vlanlist	Displays ACL binding information of specified VLAN.

Mode All modes

acl list

Syntax **list**

Purpose Use this command to display all ACL command list.

Mode All modes

set port acl

Syntax **set port** <portlist> **acl** <acl-number> {**enable | disable**}

Purpose Use this command to enable/disable port ACL.

Parameters

Parameter	Description
acl-number	number of ACL instance, its range is 1-349
portlist	port list, its range is 1-24
enable	Enable binding
disable	Disable binding

Mode Global configuration mode

set trunk acl

Syntax **set trunk** <trunklist> **acl** <acl-number> {**enable | disable**}

Purpose Use this command to enable/disable trunk ACL.

Parameters

Parameter	Description
acl-number	number of ACL instance, its range is 1-349
trunklist	aggregation port list, its range is 1-16
enable	Enable binding
disable	Disable binding

Mode Global configuration mode

clear acl

Syntax **clear acl {basic | extend | link | hybrid} number** <acl-number>

Purpose Use this command to clear ACL configuration.

Parameter

Parameter	Description
acl-number	number of ACL instance, its range is 1-349

Mode Global configuration mode

set time-range period

Syntax **set time-range** <name> **range** <start-time> **to** <end-time> **{daily | day-off | day-working | monday | tuesday | wednesday | thursday | friday | saturday | sunday}**

Purpose Use this command to configure time-range.

Parameters

Parameter	Description
name	Name of time-range, it is 1-16 sequence characters
start-time	Start time of period time-range, can be represented in hh:mm
end-time	End time of period time-range, can be represented in hh:mm
daily	Means everyday
day-off	Means day off, including Saturday and Sunday
day-working	Means working day, from Monday to Friday
monday	Monday
tuesday	Tuesday
wednesday	Wednesday
thursday	Thursday
friday	Friday
saturday	Saturday
sunday	Sunday

Mode Global configuration mode

set time-range absolute

Syntax **set time-range** < name> **range from** {<start-time start-date>} **[to** <end-time end-date>]

Purpose Use this command to set the absolute time-range.

Parameters

Parameter	Description

Parameter	Description
name	Name of time-range, it is 1-16 sequence characters
start-time	Start time of specified time-range, can be represented in hh:mm
end-time	End time of specified time-range, can be represented in hh:mm
start-date	Start date of specified time, can be represented in YYYY-MM-DD
end-date	End date of specified time, can be represented in MM-DD-YYYY. If end-date is not configured, range of time is from configuring day to max date which can be represented by system.

Mode Global configuration mode

set time-range acl

Syntax **set time-range** <name> **acl** <acl-number> **rule** <rule-id>{**enable | disable**}

Purpose Use this command to enable/disable time-range on one ACL rule.

Parameters

Parameter	Description
name	Name of time-range, it is 1-16 sequence characters
acl-number	number of ACL instance, its range is 1-349
rule-id	Specify rule id of ACL, whose range is 1-100
enable	Enable binding
disable	Disable binding

Mode Global configuration mode

clear time-range

Syntax **clear time-range** <name>

Purpose Use this command to clear time-range.

Parameter

Parameter	Description
name	Name of time-range, it is 1-16 sequence characters

Mode Global configuration mode

show time-range

Syntax **show time-range** [<name>]

Purpose Use this command to display time-range.

Parameter

Parameter	Description
name	Name of time-range, it is 1-16 sequence characters

Mode Global configuration mode

set acl-name

Syntax **set acl-name** <acl-number> **name** <word>

Purpose Use this command to set ACL name.

Parameters

Parameter	Description
acl- number	number of ACL instance, its range is 1-349
word	Name of ACL instance, it is 1-16 sequence characters

Mode Global configuration mode

clear acl-name

Syntax **clear acl-name** <acl-number>

Purpose Use this command to clear ACL name.

Parameter

Parameter	Description
acl- number	number of ACL instance, its range is 1-349

Mode Global configuration mode

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Chapter 12

QoS Configuration

Overview

Introduction This chapter introduces QoS commands of ZXR102920/2928/2952.

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set qos priority-map user-priority

Syntax **set qos priority-map user-priority** <*0-7*> **traffic-class** <*0-3*>

Purpose Use this command to set qos priority-map.

Parameters

Parameter	Description
user-priority <*0-7*>	802.1p user priority
traffic-class <*0-3*>	Traffic class

Mode Global configuration mode

Example This example describes how to set qos priority-map ip-priority 2 to traffic-class 1.

```
#set qos priority-map user-priority 2 traffic-class 1
```

set qos priority-map ip-priority

Syntax **set qos priority-map ip-priority** <*0-63*> **traffic-class** <*0-3*>

Purpose Use this command to set qos priority-map.

Parameters

Parameter	Description
ip-priority *<0-63>*	Uttely PRI mode
traffic-class *<0-3>*	Traffic class

Mode Global configuration mode

Example This example describes how to set qos priority-map ip-priority 60 to traffic-class 2.

```
#set qos priority-map ip-priority 60 traffic-class 2
```

set qos queue-schedule.

Syntax **set qos queue-schedule** <1-3> <0-7> **sp**

set qos queue-schedule <1-3> <0-7> **sdwrr** <0,1> <1-254>

Purpose Use this command to set the global queue scheduling profile.

Parameters

Parameter	Description
Sp	Strict priority
Sdwrr	shaped deficit weighted round robin
<1-3>	Queue-schedule profile
<0-7>	queue num
<0,1>	group 0 or 1
<1-254>	queue weight

Mode Global configuration mode

Example This example describes how to set QoS queue schedule profile 1, queue number 5, sdwrr 1 and queue weight 10.

```
set qos queue-schedule 1 5 sdwrr 1 10
```

set qos policer counter-mode

Syntax **set qos policer counter-mode {L1 | L2 | L3}**

Purpose Use this command to set QoS policer counter mode.

Parameters

Parameter	Description
L1	Count for Layer-1 of packet, including preamble+IPG+CRC
L2	Count for Layer-2 of packet, including L2+L3+header+CRC

Parameter	Description
L3	Count for Layer-3 of packet, including L3+packet without CRC

Mode Global configuration mode

Example This example describes how to set QoS policer counter mode to L3.

```
# set qos policer counter-mode L3
```

set qos policer parameters

Syntax **set qos policer** <*0-255*> **parameters** <1-25165824>

Purpose Use this command to set qos profile.

Parameters

Parameter	Description
<0-255>	Policer id
<1-25165824>	affirmatory speed

Mode Global configuration mode

Example This example describes how to set qos policer 10 parameters 100000.

```
# set qos policer 10 parameters 100000
```

set qos policer counter

Syntax **set qos policer** <*0-255*> **counter** <*0-15*> {**enable** | **disable**}

Purpose Use this command to set the mapping of UP to QoS profile.

Parameters

Parameter	Description
<0-255>	Policer id
<0-15>	counterid
enable	Enable the counter
disable	disable the counter

Mode Global configuration mode

Example This example describes how to set qos policer 10 counter 11 enable.

```
# set qos policer 10 counter 11 enable
```

set qos policer exceed-action

Syntax **set qos policer** *<0-255>* **exceed-action { no-operation | drop}**

Purpose Use this command to set qos policer exceed-action.

Parameters

Parameter	Description
<0-255>	Policer id
no-operation	No operation for exceed-action packet
drop	Drop the exceed-action packet

Mode Global configuration mode

Example This example describes how to set qos policer 10 exceed-action drop.

```
# set qos policer 10 exceed-action drop
```

set bandwidth feport ingress session rate

Syntax **set bandwidth feport** *<portlist>* **ingress session** *<0-3>* **rate** *<64-100000>*

Purpose Use this command to set bandwidth feport ingress session rate

Parameters

Parameter	Description
feport <portlist>	Feport number
session *<0-3>*	Session number
rate <64-100000>	Rate range，from 64K to 100M

Mode Global configuration mode

Example This example describes how to set bandwidth feport 1 ingress session rate 1000.

```
# set bandwidth feport 1 ingress session 0 rate 10000
```

set bandwidth feport ingress session packet-type

Syntax **set bandwidth feport** *<portlist>* **ingress session** *<0-3>* **packet-type {unknowmulticast | broadcast | unicast |**

multicast | MGMT | ARP | tcp-control | tcp-data | udp | non-tcpudp} {enable | disable}

Purpose Use this command to bandwidth feport ingress session packet-type.

Parameters

Parameter	Description
feport <portlist>	Feport number
session <*0-3*>	Session number
unknowmulticast	Unknowmulticast packet
broadcast	Broadcast packet
unicast	Unicast packet
multicast	Known multicast packet
MGMT	MGMT packet
ARP	ARP packet
tcp-control	tcp-control packet
tcp-data	Tcp-data packet
udp	Udp protocol packet
non-tcpudp	Non-Tcp&Udp packet

Mode Global configuration mode

Example This example describes how to set bandwidth feport 1 ingress session 0 packet-type arp enable

```
# set bandwidth feport 1 ingress session 0 packet-type arp
enable
```

set bandwidth feport ingress session queue-priority

Syntax **set bandwidth feport** <*portlist*> **ingress session** <*0-3*> **queue-priority** <*queuelist*> **{enable | disable}**

Purpose Use this command to remark the flow of QoS attribution of the designated flow.

Parameters

Parameter	Description
feport <*portlist*>	Feport number
session <*0-3*>	Session number
queue-priority <*queuelist*>	queue number the data-packet enters in the egress

Example This example describes how to set feport 1 ingress session 0 queue-priority 2.

```
# set bandwidth feport 1 ingress session 0 queue-priority
2 enable
```

Set bandwidth feport ingress session mgmt-no-ratelimit

Syntax **set bandwidth feport** <*portlist*> **ingress session** <*0-3*> **mgmt-no-ratelimit {enable | disable}**

Purpose Use this command to set the feport ingress session including manage packet or not.

Parameters

Parameter	Description
feport <*portlist*>	百兆口端口号
session <*0-3*>	Session 号
mgmt-no-ratelimit	管理包在入口限速的时候可以做例外处理

Mode Global configuration mode

Set bandwidth feport ingress session

Syntax **set bandwidth feport** <*portlist*> **ingress session** <*0-3*> **{enable | disable}**

Purpose Use this command to set the feport ingress session.

Parameters

Parameter	Description
feport <*portlist*>	Feport number
session <*0-3*>	Session number

Mode Global configuration mode

set bandwidth feport egress

Syntax **set bandwidth feport** <*portlist*> **egress { {on rate** <*64-1000000*> **} | off }**

Purpose Use this command to set bandwidth feport egress

Parameters

Parameter	Description
feport <*portlist*>	Feport number
on rate <*64-1000000*>	Limit the feport on rate 64K-1000M
off	set the egress off

Mode Global configuration mode

Example This example describes how to set feport 1 egress on rate 64.

```
# set bandwidth feport 1 egress on rate 64
```

set bandwidth geport ingress

Syntax **set bandwidth geport** *<portlist>* **ingress { { on rate** *<2000-1000000>* **} | off }**

Purpose Use this command to set bandwidth geport ingress

Parameters

Parameter	Description
feport *<portlist>*	Feport number
on rate *<2000-1000000>*	Limit the geport on rate 2M-1000M
off	set the ingress off

Mode Global configuration mode

Example This example describes how to set geport ingress on rate 50M.

```
# set bandwidth geport 49 ingress on rate 50M
```

set bandwidth geport egress

Syntax **set bandwidth geport** *<portlist>* **egress { on rate** *<281-1000000>* [**burstsize** *<4-16380>*]} **| off }**

Purpose Use this command to set bandwidth geport egress

Parameters

Parameter	Description
geport *<portlist>*	Geport number
on rate *<281-1000000>*	Set the geport on rate 281K-1000M
burstsize *<4-16380>*	Set the value of burstsize
off	Set the egress off

Mode Global configuration mode

Example This example describes how to set geport egress on rate 500M.

```
# set bandwidth geport 49 egress on rate 500M
```

set bandwidth geport packet-type

Syntax **set bandwidth geport** <*portlist*> **packet-type { unicast | nounicast | multicast | broadcast } {enable | disable}**

Purpose Use this command to set packet-type of bandwidth geport ingress

Mode Global configuration mode

Example This example describes how to set geport egress on rate 500M.

```
# set bandwidth geport 49 packet-type unicast disable
```

set policy vlan-remark

Syntax **set policy vlan-remark in acl** *<1-349>* **rule** *<1-500>* *<1-4094>* **{untagged|tagged|all} {nested|replaced}**

Purpose Use this command to remark the policy vlan.

Parameters

Parameter	Description
<1-349>	Acl instance
<1-500>	Acl rule
<1-4094>	Policy vid
untagged	Database packet without VLAN tag or only with PIR tag
tagged	Database packet with VLAN tag
all	All the Database packet
nested	Set policy vidas nested tagof the data-packet
replaced	replace policy vid with vid of the data-packet

Mode Global configuration mode

Example This example describes how to set policy policing in ACL 200, rule 50 and untagged packet id 1234.

```
#set policy vlan-remark in acl 200 rule 50 1234 untagged
replaced
```

set policy policing

Syntax **set policy policing in** { {**acl** <1-350> **rule** <1-500>} | {**sqinq-session** <1-256>} } **policer** <0-255>

Purpose Use this command to bind the rule of flux monitor

Parameters

Parameter	Description
<1-350>	acl instance
<1-500>	acl rule
<1-256>	Sqinq-session
<0-255>	Policer id

Mode Global configuration mode

Example This example describes how to set policy policing in ACL 200, rule 50 and policer id 20.

```
set policy policing in acl 200 rule 50 policer 20
```

set policy mirror

Syntax **set policy mirror in** { {**acl** <1-350> **rule** <1-500>} | {**sqinq-session** <1-256>} } **analyze-port**

Purpose Use this command to set the mirror for the traffic.

Parameters

Parameter	Description
<1-350>	acl instance
<1-500>	acl rule
<1-256>	Sqinq-session
analyze-port	Monitoring port

Mode Global configuration mode

Example This example describes how to set mirror in ACL 20 and rule 50.

```
set policy mirror in acl 200 rule 50 analyze-port
```

set policy redirect

Syntax **set policy redirect in** { {**acl** <1-350> **rule** <1-500>} | {**sqinq-session** <1-256>} } **port** <portname>

Purpose Use this command to redirect the data flow.

Parameters

Parameter	Description
<1-349>	Aclinstance
<1-500>	Acl rule
<portname>	Redirect to the specified port,only

Parameter	Description
	the geport

Mode Global configuration mode

Example Configure Qos policy redirect in switch 2928.

```
#set policy redirect in acl 200 rule 50 port 25
```

set policy statistics

Syntax **set policy statistics in acl** *<1-349>* **rule** *<1-500>* **counter** *<0-31>*

Purpose Use this command to set the statistics for the traffic.

Parameters

Parameter	Description
<1-350>	acl instance
<1-349>	Acl instance
<1-500>	acl rule
<0-31>	global count

Mode Global configuration mode

Example This example describes how to set statistics in ACL 200, rule 50 and connection counter 15.

```
zte(cfg)#set policy statistics in acl 200 rule 50 counter
15
```

set policy remark

Syntax **set policy remark in acl** *<1-349>* **rule** *<1-500>* **up** *<0-7>*

Purpose Use this command to set the statistics for the traffic.

Parameters

Parameter	Description
<1-349>	Acl instance
<1-500>	Acl rule
<0-7>	802.1 user priority

Mode Global configuration mode

Example This example describes how to set policy remarks in ACL 200, rule 50 and up 7.

```
#set policy remark in acl 200 rule 50 up 7
```

clear policy-counter

Syntax **clear policy-counter** <counterlist>

Purpose Use this command to clear QoS policy counter.

Parameter

Parameter	Description
<counterlist>	counter id list, from 0 to 31

Mode Global configuration mode

clear policy mirror

Syntax **clear policy mirror in acl** <1-349> **rule** <1-500>

Purpose Use this command to delete mirror of the traffic.

Parameters

Parameter	Description
<1-350>	acl instance
<1-500>	acl rule

Mode Global configuration mode

clear policy vlan-remark

Syntax **clear policy vlan-remark in acl** <1-349> **rule** <1-500>

Purpose Use this command to clear Vlan remark of the traffic.

Parameters

Parameter	Description
<1-350>	acl instance
<1-500>	acl rule

Mode Global configuration mode

clear policy policing

Syntax **clear policy policing in acl** <1-349> **rule** <1-500>

Purpose Use this command to delete QoS policing of the traffic.

Parameters

Parameter	Description
<1-349>	acl instance

Parameter	Description
<1-500>	acl rule

Mode Global configuration mode

clear policy statistics

Syntax **clear policy statistics in acl** <1-349> **rule** <1-500>

Purpose Use this command to clear statistics of the traffic.

Parameters

Parameter	Description
<1-349>	acl instance
<1-500>	acl rule

Mode Global configuration mode

clear policy redirect

Syntax **clear policy statistics in acl** <1-350> **rule** <1-500>

Purpose Use this command to clear redirect of the traffic.

Parameters

Parameter	Description
<1-349>	acl instance
<1-500>	acl rule

Mode Global configuration mode

clear policy remark

Syntax **clear policy remark in acl** <1-349> **rule** <1-500>

Purpose Use this command to clear remark of the traffic.

Parameters

Parameter	Description
<1-349>	acl instance
<1-500>	acl rule

Mode Global configuration mode

show qos priority-map user-priority

Syntax **show qos priority-map user-priority**

Purpose Use this command to display the mapping 802.1P.

Mode All modes

show qos priority-map ip-priority

Syntax **show qos priority-map ip-priority**

Purpose Use this command to display the mapping IP DSCP.

Mode All modes

show qos queue-schedule

Syntax **show qos queue-schedule [wrr0 | sp | wrr1-sp | wrr2-sp]**

Purpose Use this command to display qos profiles.

Mode All modes

show qos policer

Syntax **show qos policer** [<*0-255*>]

Purpose Use this command to display QoS policer counter.

Mode Global configuration mode

show qos counter

Syntax **show qos counter** [<0-31>]

Purpose Use this command to display the QoS counter .

Mode All modes

show policy

Syntax **show policy** [**mirror** | **redirect** | **qos-remark** | **vlan-remark** |**statistic** | **policing** [<0-255>]]

Purpose Use this command to display policy for traffic.

Parameters

Parameter	Description

Parameter	Description
mirror	display configuration of flow mirror
redirect	display configuration of flow redirection
qos-remark	display configuration of flow precedence tag
vlan-remark	display configuration of flow VLAN retag
statistic	display configuration of flow statistics
policing	display configuration of policy management and monitor
<0-255>	display number of policy

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Chapter 13

PVLAN Configuration

Overview

Introduction This chapter introduces PVLAN commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

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set pvlan session modify	138
set pvlan session clear-config	139
show pvlan	139

set pvlan session add

Syntax **set pvlan session** <1-4> **add promiscuous** {**port**<portid>|**trunk**<trunkid>} **isolate** {**port** <portlist>| **trunk** <trunklist> }

Purpose Use this command to add isolate and promiscuous ports of PVLAN to isolate trunk and sharing port/trunk.

Parameters

Parameter	Description
<1-4**>**	pvlan session id
isolate port	Isolated port.
promiscuous port	Shared port.
isolate trunk	Isolated trunk
promiscuous trunk	Promiscuous trunk

Parameter	Description
<portid>	Port id
<portlist>	a set of ports
<trunkid>	Trunk id
<trunklist>	Trunk list

Note: Range of parameter <portlist> is 1~16 on the ZXR10 5116/5116-FI and 1~24 on the ZXR10 5124/5124-FI.

Mode Global configuration mode

set pvlan session delete

Syntax **set pvlan session** <1-4> **delete isolate-port** <portlist>

Purpose Use this command to delete the isolate ports and promiscuous ports of PVLAN.

Parameters

Parameter	Description
<1-4**>**	pvlan session id
isolate port	Isolated port.
<portlist>	a set of ports

Mode Global configuration mode

set pvlan session modify

Syntax **set pvlan session** <1-4> **modify promiscuous**

{**port**<portid>|**trunk**<trunkid>}

Purpose Use this command to modify promiscuous ports/trunk in the PVLAN.

Parameters

Parameter	Description
<1-4**>**	pvlan session id
promiscuous port	Shared port.
<portid>	Port id
promiscuous trunk	Promiscuous trunk
<trunkid>	Trunk id

Mode Global configuration mode

set pvlan session clear-config

Syntax **set pvlan session** <1-4> **clear-config**

Purpose Use this command to clear PVLAN session.

Parameter

Parameter	Description
<1-4**>**	pvlan session id

Mode Global configuration mode

show pvlan

Syntax **show pvlan**

Purpose Use this command to display PVLAN configuration.

Mode All modes

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Chapter 14

RELAY Configuration

Overview

Introduction This chapter introduces RELAY commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 18 TOPICS IN CHAPTER 13

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set 802.1xrelay	141
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set 802.1xrelay

Syntax **set 802.1xrelay {enable|disable}**

Purpose Use this command to enable/disable the 802.1x transparent transmission function.

Parameters

Parameter	Description
enable	Enables the 802.1x transparent transmission function.
disable	Disables the 802.1x transparent transmission function.

Mode Global configuration mode

show 802.1xrelay

Syntax **show 802.1x relay**

Purpose Use this command to display the 802.1x transparent transmission configuration.

Mode All modes

Chapter 15

Layer-3 Configuration

Overview

Introduction This chapter introduces Layer-3 commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

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arp add

Syntax **arp add** <A.B.C.D> <xx.xx.xx.xx.xx.xx> <0-63> <vlanname>

Purpose Use this command to add the static address resolution.

Parameters

Parameter	Description
<A.B.C.D>	IP address.
<xx.xx.xx.xx.xx.xx>	MAC address.
<0-63>	Layer 3 port number.
<vlanname>	A VLAN ID or VLAN name.

Note: IP address must be within the IP subnet of the specified IP port. VLAN ID must be a VLAN ID which is bound with this IP port.

Mode Layer 3 configuration mode

Example 1 This example describes how to add the static address resolution 10.40.44.167, MAC address 00.00.00.00.11.22, layer 3 port 1 and vlan 1.

```
arp add 10.40.44.167 00.00.00.00.11.22 1 1
```

Example 2 This example describes how to add the static address resolution 10.40.44.167, MAC address 00.00.00.00.11.22, layer 3 port 1 and the VLAN named “group1”.

```
arp add 10.40.44.167 00.00.00.00.11.22 1 group1
```

arp delete

Syntax **arp delete** <A.B.C.D>

Purpose Use this command to delete the static address resolution.

Parameter

Parameter	Description
<A.B.C.D>	IP address.

Mode Layer 3 configuration mode

Example Use this command to delete the static address resolution of 10.40.44.167.

```
arp delete 10.40.44.167
```

arp ipport timeout

Syntax **arp ipport** <0-63> **timeout** <1-1000>

Purpose Use this command to set the layer 3 port timeout time.

Parameters

Parameter	Description
<0-63>	A layer 3 port number.
<1-1000>	Timeout time. The unit is minute. By default, it is 10 minutes.

Mode Layer 3 configuration mode

Example This example describes how to set the timeout time of layer 3 port 1 to 100 minutes.

```
arp ipport 1 timeout 100
```

clear arp

Syntax **clear arp**

Purpose Use this command to delete all ARP information.

Mode Layer 3 configuration mode

clear ipport

Syntax **clear ipport** <0-63> [**mac|ipaddress** {<A.B.C.D/M>|<A.B.C.D> <A.B.C.D>}|**vlan** <vlanname>]

Purpose Use this command to delete the ipport configuration.

Parameters

Parameter	Description
<0-63>	A layer 3 port number.
<A.B.C.D/M>	IP address and mask.
<A.B.C.D>	IP address/mask.
<vlanname>	A VLAN ID or VLAN name.

Note: Command for clearing IP port configuration is used when port is down. Command restores default values of the port (IP address: 0.0.0.0, MAC address: 00.00.00.00.00.00, bound VLAN: vlan 0).

Mode Layer 3 configuration mode

Example 1 This example describes how to delete the configuration of layer 3 port 1.

```
clear ipport 1
```

Example 2 This example describes how to delete the MAC address of layer 3 port 1

```
clear ipport 1 mac
```

Example 3 This example describes how to delete IP address 10.40.44.167 and mask 255.255.255.0 of layer 3 port 1.

```
clear ipport 1 ipaddress 10.40.44.167/24
clear ipport 1 ipaddress 10.40.44.167 255.255.255.0
```

Example 4 This example describes how to delete vlan1 of layer 3 port 1.

```
clear ipport 1 vlan 1
```

Example 5 This example describes how to delete VLAN named “group1” of layer 3 port 1.

```
clear ipport 1 vlan group1
```

clear iproute

Syntax **clear iproute** [{<A.B.C.D/M>|<A.B.C.D> <A.B.C.D>} <A.B.C.D>]

Purpose Use this command to delete a static route.

Parameters

Parameter	Description
<A.B.C.D/M>	IP address and mask.
<A.B.C.D>	IP address/mask/gateway.

Note: This command can delete all configured static routes, and the deleted routes cannot be restored.

Mode Layer 3 configuration mode

Example 1 This example describes how to delete all static routes.

```
clear iproute
```

Example 2 This example describes how to delete the static route to the network at 10.40.44.0/24 and the gateway at 10.40.44.12.

```
clear iproute 10.40.44.0/24 10.40.44.12
clear iproute 10.40.44.0 255.255.255.0 10.40.44.12
```

Iproute

Syntax **iproute** {<A.B.C.D/M>|<A.B.C.D> < A.B.C.D>} < A.B.C.D> [<1-15>]

Purpose Use this command to add a static route.

Parameters

Parameter	Description
<A.B.C.D/M>	IP address and mask.
<A.B.C.D>	IP address/mask/gateway.
<0-15>	Metric. By default, it is 0.

Mode Layer 3 configuration mode

Example This example describes how to add a static route to the network (10.40.44.0/24), with gateway at 10.40.44.255 and metric 3.

```
iproute 10.40.44.0/24 10.40.44.255 3
iproute 10.40.44.0 255.255.255.0 10.40.44.255 3
```

set ipport

Syntax **set ipport** <0-63> **{enable|disable}**

Purpose Use this command to enable/disable a layer 3 port.

Parameters

Parameter	Description
<0-63>	Number of a layer 3 port.
enable	Enables a layer 3 port.
disable	Disables a layer 3 port.

Note: To enable a layer-port, IP address and VLAN data of port shall already be configured. There is no need to configure MAC address.

Mode Layer 3 configuration

Example 1 This example describes how to enable layer 3 port 1.

```
set ipport 1 enable
```

Example 2 This example describes how to disable layer 3 port 1.

```
set ipport 1 disable
```

set ipport ipaddress

Syntax **set ipport** <0-63> **ipaddress** {<A.B.C.D/M>|<A.B.C.D> <A.B.C.D>}

Purpose Use this command to set the IP address and mask of a layer 3 port.

Parameters

Parameter	Description
<0-63>	Number of a layer 3 port.
<A.B.C.D/M>	IP address and mask.
<A.B.C.D>	IP address/mask.

Note: If an IP port is already configured with an IP address, this command is to replace IP address with a new one.

Mode Layer 3 configuration mode

Example This example describes how to set IP address of layer 3 port 1 to 10.40.44.167, and mask to 255.255.255.0.

```
set ipport 1 ipaddress 10.40.44.167/24
set ipport 1 ipaddress 10.40.44.167 255.255.255.0
```

set ipport mac

Syntax **set ipport** <0-63> **mac** <xx.xx.xx.xx.xx.xx>

Purpose Use this command to set MAC address of a layer 3 port.

Parameters

Parameter	Description
<0-63>	Number of a layer 3 port.
<xx.xx.xx.xx.xx.xx>	MAC address.

Note: Range of MAC address is from 00.d0.d0.f0.00.00 to 00.d0.d0.ff.ff.ff. If this item is not configured, MAC address is the MAC address of switch. If an IP port is already configured with a MAC address, use this command to replace MAC address with a new one.

Mode Layer 3 configuration

Example This example describes how to set MAC address of layer 3 port 1 to 00.d0.d0.f0.11.22.

```
set ipport 1 mac 00.d0.d0.f0.11.22
```

set ipport vlan

Syntax **set ipport** <0-63> **vlan** <vlanname>

Purpose Use this command to set VLAN bound with a layer 3 port.

Parameters

Parameter	Description
<0-63>	Number of a layer 3 port.
<vlanname>	A VLAN ID or VLAN name.

Note: If an IP port is bound with a VLAN, use this command to replace VLAN value with a new one.

Mode Layer 3 configuration mode

Example 1 This example describes how to set vlan 1 bound with layer 3 port 1.

```
set ipport 1 vlan 1
```

Example 2 This example describes how to set VLAN named “group1” bound with layer 3 port 1.

```
set ipport 1 vlan group1
```

show arp

Syntax **show arp** [**static|dynamic|invalid|ipport** <0-63> {**static|dynamic|invalid**} |**ipaddress** <A.B.C.D>]

Purpose Use this command to display ARP information.

Parameters

Parameter	Description
<0-63>	Number of a layer 3 port.
<A.B.C.D>	IP address

Mode All modes

Example 1 This example describes how to display information about all ARPs.

```
show arp
```

Example 2 This example describes how to display invalid ARP information.

```
show arp invalid
```

Example 3 This example describes how to display static ARP information about layer 3 port 1.

```
show arp ipport 1 static
```

Example 4 This example describes how to display ARP information about the IP address 10.40.44.167.

```
show arp ipaddress 10.40.44.167
```

show ipport

Syntax **show ipport** [<0-63>]

Purpose Use this command to display the layer 3 port information.

Parameter

Parameter	Description
<0-63>	Number of a layer 3 port.

Mode All modes

Example 1 This example describes how to display information about all layer 3 ports.

```
show ipport
```

Example 2 This example describes how to display information about layer 3 port 1.

```
show ipport 1
```

show iproute

Syntax **show iproute**

Purpose Use this command to display all static routes.

Mode All modes

Chapter 16

Network Access Service (NAS) Configuration

Overview

Introduction This chapter introduces Network Access Service (NAS) commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

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aaa-control port accounting

Syntax **aaa-control port** <portlist> **accounting {enable|disable}**

Purpose Use this command to enable/disable port accounting.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Enables the port accounting.
disable	Disables the port accounting.

Mode NAS configuration mode

aaa-control port dot1x

Syntax **aaa-control port** <portlist> **dot1x {enable|disable}**

Purpose Use this command to enable/disable 802.1x access to a port.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Enables the dot1x access to the port.
disable	Disables the dot1x access to the port.

Mode NAS configuration mode

aaa-control port keepalive

Syntax **aaa-control port** <portlist> **keepalive {enable|disable}**

Purpose Use this command to enable/disable abnormal offline test of a port.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Enables the abnormal offline test of the port.
disable	Disables the abnormal offline test of the port.

Mode NAS configuration mode

aaa-control port keepalive period

Syntax **aaa-control port** <portlist> **keepalive period** <1-3600>

Purpose Use this command to set abnormal offline test period of a port.

Parameters

Parameter	Description
<portlist>	Port list.
<1-3600>	The abnormal offline test period of the port. The unit is second. By default, it is 10 seconds.

Mode NAS configuration mode

aaa-control port max-hosts

Syntax **aaa-control port** <portlist> **max-hosts** <0-256>

Purpose Use this command to set maximum number of accessed subscribers.

Parameters

Parameter	Description
<portlist>	Port list.
<0-6256>	Maximum number of accessed subscribers. By default, it is 0.

Note: When maximum number of accessed subscribers is 0, it indicates that number of subscribers with access to port is not restricted. In this case, number of accessed subscribers is restricted by maximum number of subscribers that are allowed for access to the switch.

Mode NAS configuration mode

aaa-control port multiple-hosts

Syntax **aaa-control port** <portlist> **multiple-hosts {enable|disable}**

Purpose Use this command to enable/disable multi-subscriber access to a port.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Enables the multi-subscriber access to a port.
disable	Disables the multi-subscriber access to a port.

Mode NAS configuration mode

aaa-control port port-mode

Syntax **aaa-control port** <portlist> **port-mode {auto|force-unauthorized| force-authorized}**

Purpose Use this command to set authentication control mode of a port.

Parameters

Parameter	Description
<portlist>	Port list.
auto	The automatic authentication mode is used. It is the default mode.
force-unauthorized	The forced un-authentication mode is used.
force-authorized	The forced authentication mode is used.

Mode NAS configuration mode

aaa-control port protocol

Syntax **aaa-control port** <portlist> **protocol {pap|chap|eap }**

Purpose Use this command to set authentication mode of a port.

Parameters

Parameter	Description
<portlist>	Port list.
pap:	The port authentication mode is pap.
chap:	The port authentication mode is chap.
eap	The port authentication mode is eap-md5. It is the default authentication mode.

Mode NAS configuration mode

dot1x max-request

Syntax **dot1x max-request** <1-10>

Purpose Use this command to set timeout retransmission times for authentication system to receive challenge response from client system.

Parameter

Parameter	Description
<1-10>	Timeout retransmission times. By default, it is 2.

Mode NAS configuration mode

dot1x quiet-period

Syntax **dot1x quiet-period** <0-65535>

Purpose Use this command to set interval between one authentication failure and next authentication request being received by authentication system.

Parameter

Parameter	Description
<0-65535>	Time interval. The unit is second. By default, it is 60 seconds.

Mode NAS configuration mode

dot1x re-authenticate

Syntax **dot1x re-authenticate {enable|disable}**

Purpose Use this command to enable/disable the re-authentication mechanism.

Parameters

Parameter	Description
enable	Enables the re-authentication mechanism.
disable	Disables the re-authentication mechanism.

Mode NAS configuration mode

dot1x re-authenticate period

Syntax **dot1x re-authenticate period** <1-4294967295>

Purpose Use this command to set re-authentication period.

Parameter

Parameter	Description
<1-4294967295>	Time interval. The unit is second. By default, it is 3600 seconds.

Mode NAS configuration mode

dot1x server-timeout

Syntax **dot1x server-timeout** <1-65535>

Purpose Use this command to set timeout time for authentication system to received data packets from authentication server.

Parameter

Parameter	Description
<1-65535>	Time interval. The unit is second. By default, it is 30 seconds.

Mode NAS configuration mode

dot1x supplicant-timeout

Syntax **dot1x supplicant-timeout** <1-65535>

Purpose Use this command to set timeout time for authentication system to received data packets from authentication client system.

Parameter

Parameter	Description
<1-65535>	Time interval. The unit is second. By default, it is 30 seconds.

Mode NAS configuration mode

dot1x tx-period

Syntax **dot1x tx-period** <1-65535>

Purpose Use this command to set time for authentication system waits for retransmitting EAPOL data packets when it cannot receive response from client system.

Parameter

Parameter	Description
<1-65535>	Time interval. The unit is second. By default, it is 30 seconds.

Mode NAS configuration mode

dot1x add vlan mac

Syntax **dot1x add vlan <***vlanid***>[mac <***HH.HH.HH.HH.HH.HH***>]**

Purpose Use this command to add a private mac address.

Parameter

Parameter	Description
<vlanid>	VLAN list
<HH.HH.HH.HH.HH.HH>	MAC address.By default,the value is:01.d0.d0.ff.ff.ff

Mode NAS configuration mode

dot1x delete vlan mac

Syntax **dot1x delete vlan <***vlanid***>[mac <***HH.HH.HH.HH.HH.HH***>]**

Purpose Use this command to delete a private mac address.

Parameter

Parameter	Description
<vlanid>	VLAN list

Mode NAS configuration mode

clear client

Syntax **clear client**

Purpose Use this command to delete all users of a client.

Mode NAS configuration mode

clear client index

Syntax **clear client index** <0-63>

Purpose Use this command to delete a user of a client.

Parameter

Parameter	Description
<0-63>	User number.

Mode NAS configuration mode

clear client port

Syntax **clear client port** <portlist>

Purpose Use this command to delete a client user on a port.

Parameter

Parameter	Description
<portlist>	Port list.

Mode NAS configuration mode

clear client vlan

Syntax **clear client vlan** <vlantlist>

Purpose Use this command to delete all client users on a VLAN.

Parameter

Parameter	Description
<vlanlist>	VLAN list.

Mode NAS configuration mode

radius isp

Syntax **radius isp** <ispname> **{enable|disable}**

Purpose Use this command to add/delete an ISP.

Parameters

Parameter	Description
<ispname>	ISP domain name.
enable	Adds an ISP.
disable	Deletes an ISP.

Mode NAS configuration mode

radius isp add accounting

Syntax **radius isp** <ispname> **add accounting** <A.B.C.D> [<0-65535>]

Purpose Use this command to add an accounting server to domain.

Parameters

Parameter	Description
<ispname>	ISP domain name.
<A.B.C.D>	IP address.
<0-65535>	The UDP port of the accounting server. By default, it is 1813.

Mode NAS configuration mode

radius isp add authentication

Syntax

radius isp <ispname> **add authentication** <A.B.C.D> [<0-65535>]

Purpose Use this command to add an authentication server to domain.

Parameters

Parameter	Description
<ispname>	ISP domain name.
<A.B.C.D>	IP address.
<0-65535>	The UDP port the authentication server. By default, it is 1812.

Mode NAS configuration mode

radius isp defaultisp

Syntax **radius isp** <ispname> **defaultisp {enable|disable}**

Purpose Use this command to set/cancel a domain as a default domain.

Parameters

Parameter	Description
<ispname>	ISP domain name.
enable	Sets the ISP domain as the default ISP domain.
disable	Cancels the ISP domain as the default ISP domain.

Mode NAS configuration mode

radius isp delete accounting

Syntax **radius isp** <ispname> **delete accounting** <A.B.C.D>

Purpose Use this command to delete an accounting server from a domain.

Parameters

Parameter	Description
<ispname>	ISP domain name.
<A.B.C.D>	IP address.

Mode NAS configuration mode

radius isp delete authentication

Syntax **radius isp** <ispname> **delete authentication** <A.B.C.D>

Purpose

Use this command to delete an authentication server from a domain.

Parameters

Parameter	Description
<ispname>	ISP domain name.
<A.B.C.D>	IP address.

Mode NAS configuration mode

radius isp description

Syntax **radius isp** <ispname> **description** <string>

Purpose Use this command to configure domain description.

Parameters

Parameter	Description
<ispname>	ISP domain name.
<string>	ISP domain description.

Mode NAS configuration mode

radius isp client

Syntax **radius isp** <ispname> **client** <A.B.C.D>

Purpose Use this command to set radius client address.

Parameters

Parameter	Description
<ispname>	ISP domain name.
<A.B.C.D>	IP address.

Mode NAS configuration mode

radius isp fullaccount

Syntax **radius isp** <ispname> **fullaccount {enable|disable}**

Purpose Use this command to specify/cancel the full account for a domain.

Parameters

Parameter	Description
<ispname>	ISP domain name.
enable	Enables the full account of the ISP domain.

Parameter	Description
disable	Disables the full account of the ISP domain.

Mode NAS configuration mode

radius isp sharedsecret

Syntax **radius isp** <ispname> **sharedsecret** <string>

Purpose Use this command to configure shared password of a domain.

Parameters

Parameter	Description
<ispname>	ISP domain name.
<string>	**Shared password.**

Mode NAS configuration mode

radius nasname

Syntax **radius nasname** <nasname>

Purpose Use this command to set the NAS name.

Parameter

Parameter	Description
<nasname>	NAS name.

Mode NAS configuration mode

radius retransmit

Syntax **radius retransmit** <1-255>

Purpose Use this command to set retransmission times of remote authentication requests.

Parameter

Parameter	Description
<1-255>	Retransmission times. By default, it is 3.

Mode NAS configuration mode

radius timeout

Syntax **radius timeout** <1-255>

Purpose Use this command to set retransmission interval of remote authentication requests.

Parameter

Parameter	Description
<1-255>	Retransmission interval. The unit is second. By default, it is 3 seconds.

Mode NAS configuration mode

radius keep-time

Syntax **radius keep-time** <0-4294967295>

Purpose Use this command to set keep time of accounting packet sent unsuccessfully

Parameter

Parameter	Description
<0-4294967295>	Value of keep time(seconds),default:0(no limit)

Mode NAS configuration mode

clear accounting-stop

Syntax **clear accounting-stop** {**session-id** <session-id> | **user-name** <user-name> | **isp-name** <isp-name> | **server-ip** <A.B.C.D>}

Purpose Use this command to delete accounting stop packet sent unsuccessfully.

Parameters

Parameter	Description
<session-id>	Session id
<user-name>	User name
<isp-name>	Isp name
<A.B.C.D>	Server ip

Mode NAS configuration mode

show aaa-control port

Syntax **show aaa-control port** [<portlist>]

Purpose Use this command to display the configuration information about AAA control policy.

Parameter

Parameter	Description
<portlist>	Port list.

Mode All modes

show dot1x

Syntax **show dot1x**

Purpose Use this command to display dot1x configuration information.

Mode All modes

show client

Syntax **show client**

Purpose Use this command to display information about all accessed users.

Mode All modes

show client index

Syntax **show client index** <0-63>

Purpose Use this command to display information about an accessed user.

Parameter

Parameter	Description
<0-63>	User number.

Mode All modes

show client mac

Syntax **show client mac** <xx.xx.xx.xx.xx.xx>

Purpose

Use this command to display user access information about a MAC address.

Parameter

Parameter	Description
<xx.xx.xx.xx.xx.xx>	MAC address.

Mode All modes

show client port

Syntax **show client port** <portlist>

Purpose Use this command to display user access information about a port.

Parameter

Parameter	Description
<portlist>	Port list.

Mode All modes

show radius.

Syntax **show radius** [<ispname>]

Purpose Use this command to display RADIUS configuration information.

Parameter

Parameter	Description
<ispname>	ISP domain name.

Mode All modes

show radius accounting-stop

Syntax **show radius accounting-stop** [{ **session-id** <session-id> | **user-name** <user-name> | **isp-name** <isp-name> | **server-ip** <A.B.C.D>}]

Purpose Use this command to display accounting stop packet send unsuccessfully.

Parameters

Parameter	Description
<session-id>	Session id
<user-name>	User name

Parameter	Description
<isp-name>	Isp name
<A.B.C.D>	Server ip

Mode All modes

Chapter 17

QinQ Configuration

Overview

Introduction This chapter introduces QinQ commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

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set qinq uplink port	168
show qinq	168

set qinq customer port

Syntax **set qinq customer port** <portlist> **{enable|disable}**

Purpose Use this command to add/delete a customer port.

Parameter

Parameter	Description
<portlist**>**	Port list.

Mode Global configuration mode

Example This example describes how to set ports 1, 2, 3 and 4 as customer ports.

```
set qinq customer port 1—4 enable
```

set qinq tpid

Syntax **set qinq tpid** <tpid>

Purpose Use this command to set tpid of external layer label.

Parameter

Parameter	Description
<tpid>	The external label value (0xaaaa) used in QinQ.

Mode Global configuration mode

Example This example describes how to set tpid of external layer label to 0x8910.

```
set qinq tpid 0x8910
```

set qinq uplink port

Syntax **set qinq uplink port** <portlist> **{enable|disable}**

Purpose Use this command to add/delete an uplink port.

Parameter

Parameter	Description
<portlist**>**	Port list.

Purpose Global configuration mode

Mode Global configuration mode

Example This example describes how to set port 24 as an uplink port.

```
set qinq uplink port 24 enable
```

show qinq

Syntax **show qinq**

Purpose Use this command to display QinQ configuration information.

Mode All modes

Example This example describes how to display the QinQ configuration information.

```
show qinq
```

Chapter 18

Syslog Configuration

Overview

Introduction This chapter introduces Syslog commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

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set syslog	169
set syslog module	170
set syslog level	170
set syslog add server	171
set syslog delete server	171
show syslog status	171

set syslog

Syntax **set syslog {enable|disable}**

Purpose Use this command to enable/disable syslog.

Parameters

Parameter	Description
enable	set syslog enable
disable	set syslog disable

Mode Global configuration mode

Example This example describes how to enable syslog.

```
set syslog enable
```

set syslog module

Syntax **set syslog module {all|alarm|commandlog}{enable|disable}**

Purpose Use this command to set Syslog modules.

Parameters

Parameter	Description
all	set syslog enable/disable for all modules
alarm	set syslog enable/disable for module alarm
commandlog	set syslog enable/disable for module commandlog
enable	set syslog enable
disable	set syslog disable

Mode Global configuration mode

Example This example describes how to set syslog enable for commandlog.

```
set syslog module commandlog enable
```

set syslog level

Syntax **set syslog level {emergencies | alerts | critical | errors | warnings | notifications | informational | debugging}**

Purpose Use this command to define Syslog information level.

Parameters

Parameter	Description
emergencies	Level 1, system is unusable, highest Severity level
alerts	Level 2, action must be taken immediately
critical	Level 3, critical conditions
errors	Level 4, error conditions
warnings	Level 5, warning conditions
notifications	Level 6, normal but significant condition
informational	Level 7, informational messages
debugging	Level 8, debug-level messages

Example This example describes how to set syslog level which is 7, generally prompts the information message.

```
set syslog level informational
```

set syslog add server

Syntax **set syslog add server** <id> **ipaddress** <A.B.C.D> [**name** <name>]

Purpose Use this command to setup Syslog information receiving server.

Parameters

Parameter	Description
<*id*>	syslog server id, <1-5>
<*A.B.C.D*>	ip-address
<*name*>	server name
isnable	Close syslog function

Mode Global configuration mode

Example This example describes how to setup Syslog server.

```
set syslog add server 1 ipaddress 192.168.1.1 name srv1
```

set syslog delete server

Syntax **set syslog delete server** <id>

Purpose Use this command to delete Syslog server.

Parameter

Parameter	Description
<*id*>	syslog server id, <1-5>

Mode Global configuration mode

Example This example describes how to delete Syslog server 1.

```
set syslog delete server 1
```

show syslog status

Syntax **show syslog status**

Purpose Use this command to display Syslog status.

Mode All modes

Example This example describes how to view Syslog status.

```
Show syslog status
```

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Chapter 19

NTP Configuration

Overview

Introduction This chapter introduces NTP commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 23 TOPICS IN CHAPTER 19

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set ntp	173
set ntp server	173
set ntp source	174
show ntp	174

set ntp

Syntax **set ntp {enable|disable}**

Purpose Use this command to enable/disable NTP.

Parameters

Parameter	Description
enable	enable network time protocol
disable	disable network time protocol

Mode Global configuration mode

set ntp server

Syntax **set ntp server** <A.B.C.D> [**version** <1,2,3>]

Purpose Use this command to setup NTP server IP address.

Parameters

Parameter	Description
<A.B.C.D**>**	server ip address
<1,2,3**>**	ntp version number

Mode Global configuration mode

Example This example describes how to set NTP server whose IP address is 202.10.10.10 and version number is 2.

```
set ntp server 202.10.10.10 version 2
```

set ntp source

Syntax **set ntp source** <A.B.C.D>

Purpose Use this command to configure source IP address which is used when switch send time synchronization request of NTP protocol.

Parameter

Parameter	Description
<A.B.C.D**>**	server ip address

Mode Global configuration mode

show ntp

Syntax **show ntp**

Purpose Use this command to view NTP status.

Mode All modes

Example This example describes how to view NTP status.

```
Show ntp
```

Chapter 20

GARP/GVRP Configuration

Overview

Introduction This chapter introduces GARP/GVRP commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 24 TOPICS IN CHAPTER 20

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set gvrp trunk registration	177
show gvrp	178

set garp

Syntax **set garp {enable|disable}**

Purpose Use this command to enable/disable GARP.

Parameters

Parameter	Description
enable	set GARP enable
disable	set GARP disable

Mode Global configuration mode

set garp timer

Syntax **set garp timer{hold|join|leave|leaveall}<**timer_value>

Purpose Use this command to set timer of GARP.

Parameters

Parameter	Description
<imer_value>	Over time
hold	time value
join	Join the timer
leave	Leave the timer
leaveall	Leave all timers

Mode Global configuration mode

show garp

Syntax show garp

Purpose Use this command to view GARP information and timer setup status.

Mode All modes

set gvrp

Syntax **set gvrp {enable|disable}**

Purpose Use this command to enable/disable GVRP.

Parameters

Parameter	Description
enable	set GVRP enable
disable	set GVRP disable

Mode Global configuration mode

set gvrp port

Syntax **set gvrp port** <portlist>**{enable|disable}**

Purpose Use this command to enable/disable GVRP in port.

Parameters

Parameter	Description
<portlist**>**	A set of ports
enable	set GVRP port enable
disable	set GVRP port disable

Mode Global configuration mode]

set gvrp port registration

Syntax **set gvrp port** <portlist> **registration{normal|fixed|forbidden}**

Purpose Use this command to configure type of GVRP registration in port.

Parameters

Parameter	Description
<portlist**>**	A set of ports
normal	Set port normal
fixed	Set port fixed
forbidden	Set ort forbidden

Mode Global configuration mode

set gvrp trunk

Syntax **set gvrp trunk** <trunklist> **{enable|disable}**

Purpose Use this command to enable/disable GVRP in trunk port.

Parameter	Description
<trunklist**>**	A set of trunk
enable	set GVRP trunk enable
disable	set GVRP trunk disable

Mode Global configuration mode

set gvrp trunk registration

Syntax **set gvrp trunk**<trunklist> **registration{normal|fixed|forbidden}**

Purpose Use this command to configure trunk port and GVRP registration type.

Parameters

Parameter	Description
<trunklist**>**	A set of trunk
normal	set trunk normal
fixed	set trunk fixed
forbidden	set trunk forbidden

Mode Global configuration mode

show gvrp

Syntax **show gvrp**

Purpose Use this command to view GVRP configuration.

Mode All modes

Chapter 21

DHCP Configuration

Overview

Introduction This chapter introduces DHCP commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

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show dhcp	182
show dhcp snooping	182
show dhcp snooping binding	182
show dhcp option82	183
show dhcp option82 Access-Node-Identifier	183
show dhcp option82 port	183

clear dhcp snooping binding entry

Syntax **clear dhcp snp-bind-entry** {**all**|**port** <portname>|**mac** <xx.xx.xx.xx.xx.xx>}

Purpose Use this command to clear information of DHCP Snooping dynamic binding table/item.

Parameters

Parameter	Description
all	clear all entries
<portname**>**	Port number
<xx.xx.xx.xx.xx.xx>	MAC address

Mode Global configuration mode

clear dhcp option82 Access-Node-Identifier

Syntax **clear dhcp option82 ani**

Purpose Use this command to clear configuration of DHCP Option82 access-node-identifier.

Mode Global configuration mode

set dhcp

Syntax **set dhcp {enable|disable}**

Purpose Use this command to enable/disable the system of DHCP function.

Parameters

Parameter	Description
enable	Enable DHCP
disable	Disable DHCP

Mode Global configuration mode

set dhcp port

Syntax **set dhcp port** <portname> **{server|cascade|client}**

Purpose Use this command to configure DHCP attribute of port.

Parameters

Parameter	Description
<portname>	A set of ports
server	Port connected to DHCP server
cascade	Port connected to downstream device

Parameter	Description
client	Port connected to DHCP client

Mode Global configuration mode

set dhcp snooping

Syntax **set dhcp snooping {add|delete} port** <portlist>

Purpose Use this command to enable/disable DHCP snooping function based on port.

Parameters

Parameter	Description
add	Enable DHCP snooping
delete	Disable DHCP snooping
<portlist>	A set of ports

Mode Global configuration mode

set dhcp option82

Syntax **set dhcp option82 {add|delete} port** <portlist>

Purpose Use this command to enable/disable Option82 function based on port.

Parameters

Parameter	Description
add	Enable DHCP option82
delete	Disable DHCP option82
<portlist>	A set of ports

Mode Global configuration mode

set dhcp option82 Access-Node-Identifier

Syntax **set dhcp option82 ani** <string>

Purpose Use this command to configure access-node-identifier.

Parameter

Parameter	Description
<string>	ASCII string identifies the switch

Mode Global configuration mode

set dhcp option82 sub-option

Syntax **set dhcp option82 sub-option port** <portname> {**circuit-ID** {**on** {**cisco|china-tel|dsl-forum}|off**} |**subscriber-ID** {**on** <string>|**off**}|**reserve** {**on tag** <1-255> **value** <string>|**off**}}

Purpose Use this command to enable/disable DHCP Option82 sub-option based on port.

Parameters

Parameter	Description
<portname>	A set of ports
on	Enable option82
off	disable option82
<sting>	ASCII string indentifies an unique subscriber

Note: ZXR102920/2928/2952 supports three forms of Circuit_ID sub-option: Cisco form, CHINA-TEL form and DSL-Forum form.

Mode Global configuration mode

show dhcp

Syntax **show dhcp**

Purpose Use this command to display DHCP information and attribute of the ports.

Mode All modes

show dhcp snooping

Syntax **show dhcp snooping**

Purpose Use this command to display DHCP Snooping configurations.

Mode All modes

show dhcp snooping binding

Syntax **show dhcp snooping binding** [**port** <portname>]

Purpose

Use this command to display information of DHCP Snooping dynamic binding table.

Parameter

Parameter	Description
<portname>	A set of ports

Mode All modes

show dhcp option82

Syntax **show dhcp option82**

Purpose Use this command to display DHCP Option82 configuration information.

Mode All modes

show dhcp option82 Access-Node-Identifier

Syntax **show dhcp option82 ani**

Purpose Use this command to display DHCP Option82 access-node-identifier.

Mode All modes

show dhcp option82 port

Syntax **show dhcp option82 port** <portname>

Purpose Use this command to display DHCP Option82 configuration information based on port.

Parameter

Parameter	Description
<portname>	A set of ports

Mode All modes

This page is intentionally blank.

Chapter 22

Remote-Access Configuration

Overview

Introduction This chapter introduces Remote-Access commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 26 TOPICS IN CHAPTER 25

Topics	Page No.
clear remote-access all	185
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set remote-access ipaddress	186
show remote-access	187

clear remote-access all

Syntax **clear remote-access all**

Purpose Use this command to delete all IP addresses that allow remote access.

Mode Global configuration mode

clear remote-access ipaddress

Syntax **clear remote-access ipaddress** <A.B.C.D> [<A.B.C.D>]

Purpose Use this command to delete an IP address that allows remote access.

Parameter

Parameter	Description
<A.B.C.D>	IP-address

Mode Global configuration mode

set remote-access

Syntax **set remote-access {any|specific}**

Purpose Use this command to enable/disable restrictive remote access.

Parameters

Parameter	Description
any	Any IP address may telnet switchboard
specific	Only has specific IP address only then to be allowed to telnet switchboard

Mode Global configuration mode

set remote-access ipaddress

Syntax **set remote-access ipaddress** <A.B.C.D> [<A.B.C.D>]

Purpose Use this command to configure IP address that allows remote access.

Parameter

Parameter	Description
<A.B.C.D>	IP-address

Mode Global configuration mode

show remote-access

Syntax **show remote-access**

Purpose Use this command to display Remote-Access configuration information.

Mode All modes

This page is intentionally blank.

Chapter 23

SSH Configuration

Overview

Introduction This chapter introduces SSH commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 27 TOPICS IN CHAPTER 26

Topics	Page No.
set ssh	189
show ssh	189

set ssh

Syntax **set ssh {enable|disable}**

Purpose Use this command to enable/disable the SSH function.

Parameters

Parameter	Description
enable	Enables the SSH function.
disable	Disables the SSH function.

Mode Global configuration mode

show ssh

Syntax **show ssh**

Purpose Use this command to display SSH configuration and status.

Mode All modes

This page is intentionally blank.

Chapter 24

SNMP Configuration

Overview

Introduction This chapter introduces SNMP commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 28 TOPICS IN CHAPTER 27

Topics	Page No.
clear community	191
clear group	192
clear host	192
clear user	193
clear view	193
create community	193
create view	194
set community view	194
set engineID	195
set group	195
set host	196
set trap	196
set user	197
show snmp	198

clear community

Syntax **clear community** <string>

Purpose Use this command to delete a community name.

Parameter

Parameter	Description
<string>	Community name.

Mode SNMP configuration mode

Example This example describes how to delete community name seu.

```
clear community seu
```

clear group

Syntax **clear group** <string> **v3 {auth|noauth|priv}**

Purpose Use this command to delete a group name.

Parameters

Parameter	Description
<string>	Community name.
noauth	group which is using NoAuthNoPriv security level
auth	group which is using AuthNoPriv security level
priv	group which is using AuthAndPriv security level

Mode SNMP configuration mode

Example This example describes how to delete group gname, its security is auth.

```
clear group gname v3 auth
```

clear host

Syntax **clear host** <A.B.C.D> {**trap|inform**} <string>

Purpose Use this command to delete a trap.

Parameters

Parameter	Description
<A.B.C.D>	Host ip-address
trap	Trap host
inform	Inform host
<string>	Community name.

Mode SNMP configuration mode

Example 1 This example describes how to delete the trap host at 10.40.44.167 cname.

```
clear host 10.40.44.167 trap cname
```

Example 2 This example describes how to delete the inform host at 10.40.44.167 uname.

```
clear host 10.40.44.167 inform uname
```

clear user

Syntax **clear user** <string> **v3**

Purpose Use this command to delete a user name.

Parameter

Parameter	Description
<string>	Name of the user.

Mode SNMP configuration mode

Example This example describes how to delete user name “uname”.

```
clear user uname v3
```

clear view

Syntax **clear view** <string>

Purpose Use this command to delete a view name.

Parameter

Parameter	Description
<string>	View name.

Mode SNMP configuration mode

Example This example describes how to delete view name “school”.

```
clear view school
```

create community

Syntax **create community** < string > **{public|private}**

Purpose Use this command to create a community name and set authority.

Parameters

Parameter	Description
<name>	Community name.
public	The attribute of the community name is read-only.
private	The attribute of the community name is read-write.

Mode SNMP configuration mode

Example This example describes how to create a community name “seu” with read-write attribute.

```
create community seu private
```

create view

Syntax **create view** < string > [{**include|exclude**} <mib-oid>]

Purpose Use this command to create a view name and determine whether view contains a mib subtree.

Parameters

Parameter	Description
<name>	View name.
<mib-oid>	Information path.

Note: When “{**include**|**exclude**} <*mib-oid*>” is not specified, view contains 1.3.6.1 by default.

Mode SNMP configuration mode

Example This example describes how to create view name “school”, excluding 1.3.6.2.19.2.

```
create view school exclude 1.3.6.2.19.2
```

set community view

Syntax **set community** < string > **view** < string >

Purpose This example describes how to specify that the view contains specified community name.

Parameter

Parameter	Description
<name>	Community name/view name.

Mode SNMP configuration mode

Example This example describes how to set the view “school” which contains seu.

```
set community seu view school
```

set engineID

Syntax **set engineID** <string>

Purpose This example describes how to set engine identifier.

Parameter

Parameter	Description
<string>	engine ID octet string

Mode SNMP configuration mode

Example This example describes how to set engine identifier 830900020300010289d64401.

```
set engineID 830900020300010289d64401
```

set group

Syntax **set group** <string> v3 {**auth|noauth|priv**} [**read** <string> [**write** <string> [**notify** <string>]]]

Purpose Use this command to set group name and its security level.

Parameter

Parameter	Description
<string>	name of the group
noauth	group using NoAuthNoPriv security level
auth	group using AuthNoPriv security level
priv	group using AuthAndPriv security level
read	view name
write	view name
notify	view name

Note: There are three levels of group: no authentication and no encrypting, authentication and no encrypting, authentication and encrypting. Group can be configured as three views: reading, writing and informing. If it is not specified, it will take “zte View” as the default view, including reading, writing and informing. It is allowed to configure on switch with same group name and different security level.

Mode SNMP configuration mode

Example This example describes how to set group named gnmae, security rank is priv, reads, writes, the notice view respectively is (when rview, wview, nview does not assign, three kind of views all lack province disposition are zteView).

```
set group gname v3 priv read rview write wview notify
nview
```

set host

Syntax **set host** <A.B.C.D> {**trap|inform**} {**v1|v2c**} <string>

set host < A.B.C.D > {**trap|inform**} **v3** <string> {**auth|noauth|priv**}

Purpose Use this command to set address, community name and version of trap or inform host

Parameters

Parameter	Description
<A.B.C.D>	IP address
<string>	name of the group
trap	Trap type
inform	Inform version
v1	SNMP v1
v2c	SNMP v2c
v3	SNMP v3
noauth	group using NoAuthNoPriv security level
auth	group using AuthNoPriv security level
priv	group using AuthAndPriv security level

Example 1 This example describes how to set host with ip address of 10.40.44.167 trap v2c with “cname”.

```
set host 10.40.44.167 trap v2c cname
```

Example 2 This example describes how to set host with ip address of 10.40.44.167 inform v3 with “uname” auth.

```
set host 10.40.44.167 inform v3 uname auth
```

set trap

Syntax **set trap {linkdown|linkup|authenticationfail|coldstart|warmstart |topologychange|memberupdown|portloopdetect|trunkloopdetect| dynamicMacExceed } {enable|disable}**

Purpose Use this command to enable/disable such traps as link interruption, link setup, link authentication failure, cold start, hot

start, and cluster topology change and cluster member Up/Down of the SNMP.

Parameters

Parameter	Description
linkdown	The link is down.
linkup	The link is set up.
authenticationfail	The link authentication fails.
coldstart	Cold start.
warmstart	Hot start.
topologychange	Topology Change.
memberupdown	Member Up/Down.
portloopdetect	loopdetect port status trap
trunkloopdetect	loopdetect trunk status trap
dynamicMacExceed	dynamic_mac_exceed trap
enable	Enables trap.
disable	Disables trap.

Mode SNMP configuration mode

set user

Syntax **set user** <string> <string> **v3** [**{md5-auth|sha-auth}** <string> [**des56-priv** <string>]]

Purpose Use this command to set user name, group it belonging to and its security attribute.

Parameters

Parameter	Description
<string>	name of the user and group user which it belongs to
md5-auth	HMAC MD5 algorithm for authentication
sha-auth	HMAC SHA algorithm for authentication
des56-priv	56 bit DES algorithm for encryption for the user

Mode SNMP configuration mode

Example This example describes how to set user name “uname”, respective group gname; Authentication type md5-auth, authentication password is zte; Encryption type des56-priv, encryption password is zte.

```
set user uname gname v3 md5-auth zte des56-priv zte
```

show snmp

Syntax **show snmp [{community|engineID|group|host|trap|user|view}]**

Purpose Use this command to display SNMP configuration.

Parameters

Parameter	Description
community	Displays the snmp community information.
engineID	Displays the snmp engine id information
group	Displays the snmp group information
host	Displays the snmp host information.
trap	Displays the snmp trap information.
user	Displays the snmp user information
view	Displays the snmp view information.

Mode All modes

Example 1 This example describes how to display all SNMP information.

```
show snmp
```

Example 2 This example describes how to display the configured SNMP host address.

```
show snmp host
```

Chapter 25

RMON Configuration

Overview

Introduction This chapter introduces RMON commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 29 TOPICS IN CHAPTER 28

Topics	Page No.
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set history	202
set rmon	203
set statistics	203
show alarm	204
show event	205
show history	205
show rmon	206
show statistics	206

set alarm

Syntax **set alarm** <1-65535> {**interval** <1-65535>|**variable** <mib-oid>|**sampletype** {**absolute|delta**}|**startup** {**rising|falling|both**}|**threshold** <1-65535> **eventindex** <1-65535> {**rising|falling**}|**owner** <name>|**status** {**valid|underCreation|createRequest|invalid**}}

Purpose Use this command to set an alarm group.

Parameters

Parameter	Description
<1-65535>	The index/time interval (unit: second)/peak value/event index of the alarm group.
<mib-oid>	Information path.
<name>	Name of the owner.
absolute	The sampling type of the alarm group is absolute value sampling.
delta	The sampling type of the alarm group is relative value sampling.
rising	The alarm group is triggered upon the rising of the data.
falling	The alarm group is triggered upon the falling of the data.
both	The alarm group is triggered upon the rising and falling of the data.
valid	The status of the alarm group is “valid”.
underCreation	The status of the alarm group is “underCreation”.
createRequest	The status of the alarm group is “createRequest”.
invalid	The status of the alarm group is “invalid”.

Mode SNMP configuration mode

Example 1 This example describes how to set time interval of alarm instance with index of 10 to 100s.

```
set alarm 10 interval 100
```

Example 2 This example describes how to set sampling object of alarm instance with index of 10 to 1.3.6.2.19.2.

```
set alarm 10 variable 1.3.6.2.19.2
```

Example 3 This example describes how to set sampling type of alarm instance with index of 10 to delta.

```
set alarm 10 sampletype delta
```

Example 4 This example describes how to set alarm instance with index of 10 which is triggered upon rising of data.

```
set alarm 10 startup rising
```

Example 5 This example describes how to specify that alarm instance with index of 10 triggers the event with index of 100 when data rises up to 30,000.

```
set alarm 10 threshold 30000 eventindex 100 rising
```

Example 6 This example describes how to set owner of alarm instance with index of 10 to “user1”.

```
set alarm 10 owner user1
```

Example 7 This example describes how to set status of alarm instance with index of 10 to “invalid”.

```
set alarm 10 status invalid
```

set event

Syntax **set event** <1-65535> {**description** <string>|**type** {**none|log|snmptrap|logandtrap**}|**owner** <name>|**community** <name>|**status** {**valid|underCreation|createRequest|invalid**}}

Purpose Use this command to set an event group.

Parameters

Parameter	Description
<1-65535>	Index of the event group.
<string>	Description.
<name>	Name/community name of the owner.
none	The type of the event group is none.
log	The type of the event group is log.
snmptrap	The type of the event group is trap.
logandtrap	The type of the event group is log and trap.
valid	The status of the event group is “valid”.
underCreation	The status of the event group is “underCreation”
createRequest	The status of the event group is “createRequest”.
invalid	The status of the event group is “invalid”.

Mode SNMP configuration mode

Example 1 This example describes how to set description of the event instance with index of 10 to initial.

```
set event 10 description initial
```

Example 2 This example describes how to set type of the event instance with index of 10 to log

```
set event 10 type log
```

Example 3 This example describes how to set community name of the event instance with index of 10 to seu.

```
set event 10 community seu
```

Example 4 This example describes how to set owner of the event instance with index of 10 to tom.

```
set event 10 owner tom
```

Example 5 This example describes how to set status of the event instance with index of 10 to invalid.

```
set event 10 status invalid
```

set history

Syntax **set history** <1-65535> {**datasource** <portname>|**bucketRequested** <1-65535>|**owner** <name>|**interval** <1-3600>|**status** {**valid|underCreation|createRequest|invalid**}}

Purpose Use this command to set a history group.

Parameters

Parameter	Description
<1-65535>	Index of the history group/value of the buckerRequest.
<portname>	A port number or port name.
<name>	Name of the owner.
<1-3600>	The time interval of the history group. The unit is second.
valid	The status of the history group is “valid”.
underCreation	The status of the history group is “underCreation”.
createRequest	The status of the history group is “createRequest”.
invalid	The status of the history group is “invalid”.

Mode SNMP configuration mode

Example 1 This example describes how to set data source of history instance with index of 10 to port 1.

```
set history 10 datasource 1
```

Example 2 This example describes how to set data source of history instance with index of 10 to port userx.

```
set history 10 datasource userx
```

Example 3 This example describes how to set buckerRequest of history instance with index of 10 to 100.

```
set history 10 bucketRequest 100
```

Example 4 This example describes how to set owner name of history instance with index of 10 to tom.

```
set history 10 owner tom
```

Example 5 This example describes how to set time interval of history instance with index of 10 to 100s.

```
set history 10 interval 100
```

Example 6 This example describes how to set status of history instance with index of 10 to invalid.

```
set history 10 status invalid
```

set rmon

Syntax **set rmon {enable|disable}**

Purpose Use this command to enable/disable RMON.

Parameters

Parameter	Description
enable	Enables RMON.
disable	Disables RMON.

Mode SNMP configuration mode

set statistics

Syntax **set statistics** <1-65535> {**datasource** <portname>|**owner** <name>|**status** {**valid|underCreation|createRequest|invalid**}}

Purpose Use this command to set a statistics group.

Parameters

Parameter	Description
<1-65535>	Index of the statistics group.
<portname>	A port number or port name.
<name>	Name of the owner.
valid	The status of the statistics group is “valid”.
underCreation	The status of the statistics group is “underCreation”.
createRequest	The status of the statistics group is “createRequest”.
invalid	The status of the statistics group is “invalid”.

Mode SNMP configuration mode

Example 1 This example describes how to set data source of statistics instance with index of 10 to port 1.

```
set statistics 10 datasource 1
```

Example 2 This example describes how to set data source of statistics instance with index of 10 to port userx.

```
set statistics 10 datasource userx
```

Example 3 This example describes how to set owner name of statistics instance with index of 10 to tom.

```
set statistics 10 owner tom
```

Example 4 This example describes how to set status of statistics instance with index of 10 to invalid.

```
set statistics 10 status invalid
```

show alarm

Syntax **show alarm** [<1-65535>]

Purpose Use this command to display alarm group configuration information.

Parameter

Parameter	Description
<1-65535>	Index of the alarm group.

Mode All modes

Example 1 This example describes how to display RMON information about all alarm instances.

```
show alarm
```

Example 2 This example describes how to display RMON information about alarm instance with index of 10.

```
show alarm 10
```

show event

Syntax **show event** [<1-65535>]

Purpose Use this command to display event group configuration information.

Parameter

Parameter	Description
<1-65535>	Index of the event group.

Mode All modes

Example 1 This example describes how to display RMON information about all event instances.

```
show event
```

Example 2 This example describes how to display RMON information about event instance with index of 10.

```
show event 10
```

show history

Syntax **show history** [<1-65535>]

Purpose Use this command to display history group configuration information.

Parameter

Parameter	Description
<1-65535>	Index of the history group.

Mode All modes

Example 1 This example describes how to display RMON information about all existing history instances.

```
show history
```

Example 2 This example describes how to display RMON information about history instance with index of 10.

```
show history 10
```

show rmon

Syntax **show rmon**

Purpose Use this command to display RMON information.

Mode All modes

show statistics

Syntax **show statistics** [<1-65535>]

Purpose Use this command to display statistics group configuration information.

Parameter

Parameter	Description
<1-65535>	Index of the statistics group.

Mode All modes

Chapter 26

Group Management Configuration

Overview

Introduction This chapter introduces Group Management commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 30 TOPICS IN CHAPTER 29

Topics	Page No.
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save member	209
set group add device	209
set group add mac	210
set group candidate	210
set group commander ipport	210
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set group handtime	211
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set group tftpsvr	212
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erase member

Syntax **erase member** {<idlist>| **all**}

Purpose Use this command to delete configuration of member switches in the cluster.

Parameters

Parameter	Description
<idlist>	ID of the member switch.
all	all active members

Mode Group configuration mode

Example This example describes how to delete information about member switch with ID of 2.

```
erase member 2
```

reboot member

Syntax **reboot member** {<idlist>| **all**}

Purpose Use this command to start a member switch.

Parameters

Parameter	Description
<idlist>	ID of the member switch.
all	all active members

Mode Group configuration mode

Example This example describes how to restart member switch with ID of 1.

```
reboot member 1
```

save member

Syntax **save member** {<idlist>| **all**}

Purpose Use this command to save information about member switches in cluster.

Parameters

Parameter	Description
<idlist>	ID of the member switch.
all	all active members

Mode Group configuration mode

Example This example describes how to save information about member switch with ID of 4

```
save member 4
```

set group add device

Syntax **set group add device** <idlist>

Purpose Use this command to add a member device according to device number.

Parameter

Parameter	Description
<idlist>	Device ID.

Mode Group configuration mode

Example This example describes how to add device with the device number of 3 to cluster.

```
set group add device 3
```

set group add mac

Syntax **set group add mac** <xx.xx.xx> [<1-255>]

Purpose Use this command to add a member according to device MAC address and specify member ID.

Parameters

Parameter	Description
<xx.xx.xx>	The latter part of the MAC address.
<1-255>	Member ID.

Mode Group configuration mode

Example This example describes how to add device with MAC address of 00.d0.d0.f2.d0.f5 to cluster and specify member ID as 4.

```
set group add mac f2.d0.f5 4
```

set group candidate

Syntax **set group candidate**

Purpose Use this command to set switches as candidate switches.

Mode Group configuration mode

set group commander ipport

Syntax **set group commander ipport** <0-63> [**ip-pool** <A.B.C.D/M>]

Purpose Use this command to set a switch as command switch, specify layer 3 port number and set IP address pool for cluster management.

Parameters

Parameter	Description
<0-63>	Number of the layer 3 port.
<A.B.C.D/M**>**	IP address and mask.

Mode Group configuration mode

Example This example describes how to set command switch, specify layer 3 port 3 for cluster management and set IP address pool to 192.168.1.2/24.

```
set group commander ipport 3 ip-pool 192.168.1.2/24
```

set group delete member

Syntax **set group delete member** <idlist>

Purpose Use this command to delete a member according to member ID.

Parameter

Parameter	Description
<idlist>	Member ID.

Mode Group configuration mode

Example This example describes how to delete a member according to member ID.

```
set group delete member 3
```

set group independent

Syntax **set group independent**

Purpose Use this command to set switches as independent switches.

Mode Group configuration mode

set group handtime

Syntax **set group handtime** <1-300>

Purpose Use this command to set time interval for automatic handshake between member switches and command switch.

Parameter

Parameter	Description
<1-300>	Time interval for automatic handshake between member switches and the command switch. The unit is second. By default, it is 8 seconds.

Mode Group configuration mode

Example This example describes how to set time interval for automatic handshake between member switches and command switch.

```
set group handtime 10
```

set group holdtime

Syntax **set group holdtime** <1-300>

Purpose Use this command to set valid time for holding information about member switch configured by command switch.

Parameter

Parameter	Description
<1-300>	The valid time for holding the information about the member switch configured by the command switch. The unit is second. By default, it is 80 seconds.

Mode Group configuration mode

Example This example describes how to set valid time for holding information about member switch configured by command switch to 100 seconds.

```
set group holdtime 100
```

set group name

Syntax **set group name** <name>

Purpose Use this command to set group name.

Parameter

Parameter	Description
<name>	Sets the group name.

Mode Group configuration mode

Example This example describes how to set cluster name to zte.

```
set group name zte
```

set group tftpsvr

Syntax **set group tftpsvr** < A.B.C.D>

Purpose Use this command to specify IP address of TFTP server of cluster.

Parameter

Parameter	Description
<A.B.C.D**>**	IP address.

Mode Group configuration mode

Example This example describes how to set IP address of TFTP server of cluster to 192.168.200.1.

```
set group tftpsvr 192.168.200.1
```

set group syslogsvr

Syntax **set group syslogsvr** < A.B.C.D>

Purpose Use this command to specify IP address of SYSLOG server of cluster.

Parameter

Parameter	Description
<A.B.C.D>	IP address.

Mode Group configuration mode

Example This example describes how to set IP address of SYSLOG server of cluster to 192.168.200.1.

```
set group syslogsvr 192.168.200.1
```

set zdp

Syntax **set zdp {enable|disable}**

Purpose Use this command to enable/disable switch neighbor discovery function.

Parameters

Parameter	Description
enable	Enables the switch neighbor recovery function.
disable	Disables the switch neighbor recovery function.

Mode Group configuration mode

set zdp holdtime

Syntax **set zdp holdtime** <10-255>

Purpose Use this command to set time for saving ZDP packets sent by device.

Parameter

Parameter	Description
<10-255>	The time for saving ZDP packets sent by the device. By default, it is 180 seconds.

Mode Group configuration mode

set zdp port

Syntax **set zdp port** <portlist> **{enable|disable}**

Purpose Use this command to enable/disable switch neighbor recovery function on a port.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Enables the switch neighbor recovery function.
disable	Disables the switch neighbor recovery function.

Mode Group configuration mode

Example This example describes how to enable switch neighbor recovery function on port 2.

```
set zdp port 2 enable
```

set zdp timer

Syntax **set zdp timer** <5-255>

Purpose Use this command to set time interval for sending ZDP packets.

Parameter

Parameter	Description
<5-255>	Time interval for sending ZDP packets. The unit is second. By default, it is 60 seconds.

Mode Global configuration mode

Example This example describes how to set time interval for sending ZDP packets to 70 seconds.

```
set zdp timer 70
```

set zdp trunk

Syntax **set zdp trunk** <trunklist> **{enable|disable}**

Purpose Use this command to enable/disable switch neighbor recovery function on a trunk.

Parameters

Parameter	Description
<trunklist>	Trunk list.
enable	Enables the switch neighbor recovery function.
disable	Disables the switch neighbor recovery function.

Mode Global configuration mode

Example This example describes how to enable switch neighbor recovery function on trunk 2.

```
set zdp trunk 2 enable
```

set ztp

Syntax **set ztp {enable|disable}**

Purpose Use this command to enable/disable topology information collection function of switch.

Parameters

Parameter	Description
enable	Enables the topology information collection function of the switch.
disable	Disables the topology information collection function of the switch.

Mode Global configuration mode

set ztp hop

Syntax **set ztp hop** <1-128>

Purpose Use this command to set topology information collection range (hop count).

Parameter

Parameter	Description
<1-128>	Topology information collection range (hop count). By default, it is 4.

Mode Group configuration mode

set ztp hopdelay

Syntax **set ztp hopdelay** <1-1000>

Purpose Use this command to set delay for the device to forward topology information collection packets.

Parameter

Parameter	Description
<1-1000>	Delay for the device to forward topology information collection packets. The unit is millisecond. By default, it is 200 milliseconds.

Mode Group configuration mode

Example This example describes how to set delay for the device to forward topology information collection packets to 400 milliseconds.

```
set ztp hopdelay 400
```

set ztp port

Syntax **set ztp port** <portlist> **{enable|disable}**

Purpose Use this command to enable/disable topology information collection function on a port.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Enables the topology information collection function on a port.
disable	Disables the topology information collection function on a port.

Mode Group configuration mode

Example This example describes how to enable topology information collection function on port 2.

```
set ztp port 2 enable
```

set ztp portdelay

Syntax **set ztp portdelay** <1-100>

Purpose Use this command to set the delay for next port of device to forward topology information collection packets.

Parameter

Parameter	Description
<1-100>	Delay for the next port of the device to forward topology information collection packets. The unit is millisecond. By default, it is 20 milliseconds.

Mode Group configuration mode

Example This example describes how to set delay for next port of device to forward topology information collection packets to 40 milliseconds.

```
set ztp portdelay 40
```

set ztp timer

Syntax **set ztp timer** <0-60>

Purpose Use this command to set time interval for starting automatic topology information collection.

Parameter

Parameter	Description
<0-60>	Time interval. The unit is minute. “0” indicates that the connection is not conducted.

Mode Group configuration mode

Example This example describes how to set time interval for starting automatic topology information collection to 2 minutes.

```
set ztp timer 2
```

set ztp trunk

Syntax **set ztp trunk** <trunklist> **{enable|disable}**

Purpose Use this command to enable/disable topology information function of switch on a trunk.

Parameters

Parameter	Description
<trunklist>	Trunk list.
enable	Enables the topology information collection of the switch.
disable	Disables the topology information collection of the switch.

Mode Group configuration mode

Example This example describes how to enable topology information collection function of switch on trunk 2.

```
set zdp trunk 2 enable
```

set ztp vlan

Syntax **set ztp vlan** <1-4094>

Purpose Use this command to specify that topology information collection is conducted in a VLAN.

Parameter

Parameter	Description
<1-4094>	VLAN ID. The range is 1~4094.

Mode Group configuration mode

Example This example describes how to specify that topology information collection is conducted in vlan 40.

```
set ztp vlan 40
```

show group

Syntax **show group**

Purpose Use this command to display cluster management information.

Mode All modes

show group candidate

Syntax **show group candidate**

Purpose Use this command to display information about candidate switches in the cluster.

Mode All modes

show group member

Syntax **show group member** [<1-255>]

Purpose Use this command to display information about member switches in cluster.

Parameter

Parameter	Description
<1-255>	ID of the member switch.

Mode All modes

Example This example describes how to display information about switch with cluster member ID of 6.

```
show group member 6
```

show zdp

Syntax **show zdp**

Purpose Use this command to display ZDP configuration information about switch.

Mode All modes

show zdp neighbour

Syntax **show zdp neighbour [detail]**

Purpose Use this command to display neighbor device information detected by ZDP protocol.

Mode All modes

show ztp

Syntax **show ztp**

Purpose Use this command to display configuration information about topology information collection protocol.

Mode All modes

show ztp device

Syntax **show ztp device** [<idlist>]

Purpose Use this command to display configuration about topology information collection protocol according to device number.

Parameter

Parameter	Description
<idlist>	Device number.

Mode All modes

Example This example describes how to display information about device with the device number of 2 in topology information collection results.

```
show ztp device 2
```

show ztp mac

Syntax **set ztp mac** <xx.xx.xx>

Purpose Use this command to display configuration information about topology information collection protocol according to MAC address of the device.

Parameter

Parameter	Description
<xx.xx.xx>	The latter part of the MAC address.

Mode All modes

Example This example describes how to display configuration information about topology information collection protocol according to MAC address of the device.

```
set ztp mac f2.d0.f5
```

ztp start

Syntax **ztp start**

Purpose Use this command to start topology information collection procedure.

Mode Group configuration mode

Chapter 27

Web Configuration

Overview

Introduction This chapter introduces Web commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 31 TOPICS IN CHAPTER 30

Topics	Page No.
set web	221
set web listen-port	221

set web

Syntax **set web {enable|disable}**

Purpose Use this command to enable/disable web.

Parameters

Parameter	Description
enable	set web enable
disable	set web disable

Mode Global configuration mode

set web listen-port

Syntax **set web listen-port** <80,1025-49151>

Purpose Use this command to set web server listen port.

Parameter

Parameter	Description

Parameter	Description
<80,1025-49151>	web server listen port

Mode Global configuration mode

Chapter 28

Single-port Loop Detection Test

Overview

Introduction This chapter introduces Single-port Loop Detection Test commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

Topics	Page No.
set loopdetect blockdelay	223
set loopdetect sendpktinterval	224
set loopdetect port	224
set loopdetect port vlan	224
set loopdetect port protect	225
set loopdetect trunk	225
set loopdetect trunk vlan	225
set loopdetect trunk protect	226
show loopdetect	226

set loopdetect blockdelay

Syntax **set loopdetect blockdelay** <1-1080>

Purpose Use this command to set port blocking interval during loop.

Parameter

Parameter	Description
<1-1080>	Time interval. The unit is minute. By default, it is 5 minutes.

Mode Global configuration mode

set loopdetect sendpktinterval

Syntax **set loopdetect sendpktinterval** <5-60>

Purpose Use this command to set interval time of sending loop test packet.

Parameter

Parameter	Description
<5-60>	send loopdetect packet interval (second),default:15

Mode Global configuration mode

set loopdetect port

Syntax **set loopdetect port** <portlist> **{enable|disable}**

Purpose Use this command to enable/disable port loop detection.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Enables the port loop detection.
disable	Disables the port loop detection.

Mode Global configuration mode

set loopdetect port vlan

Syntax **set loopdetect port** <portlist> **vlan** <1-4094>**{enable|disable}**

Purpose Use this command to enable/disable loop test function of specified port in specified vlan.

Parameters

Parameter	Description
<portlist>	Port list.
<1-4094>	a single vlan id or vlan descriptive name
enable	Enables the port loop detection.
disable	Disables the port loop detection.

Mode Global configuration mode

set loopdetect port protect

Syntax **set loopdetect port** <portlist> **protect {enable|disable}**

Purpose Use this command to enable/disable port protection in case of port loop.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Enables the port protection.
disable	Disables the port protection.

Mode Global configuration mode

set loopdetect trunk

Syntax **set loopdetect trunk** <trunklist> **{enable|disable}**

Purpose Use this command to enable/disable trunk loop detection.

Parameters

Parameter	Description
<trunklist>	Trunk ID list.
enable	Enables the trunk loop detection.
disable	Disables the trunk loop detection.

Mode Global configuration mode

set loopdetect trunk vlan

Syntax **set loopdetect trunk** <trunklist> **vlan** <1-4094>**{enable|disable}**

Purpose Use this command to enable/disable loop test function of a trunk on a designated vlan.

Parameters

Parameter	Description
<trunklist>	Trunk ID list.
<1-4094>	Vlan ID
enable	Enables the trunk loop detection.
disable	Disables the trunk loop detection.

Mode Global configuration mode

set loopdetect trunk protect

Syntax **set loopdetect trunk** <trunklist> **protect {enable|disable}**

Purpose Use this command to enable/disable trunk protection in case of trunk loop.

Parameters

Parameter	Description
<trunklist>	Trunk ID list.
enable	Enables the trunk protection.
disable	Disables the trunk protection.

NOTE: The range of parameter <trunklist> 1~16.

Mode Global configuration mode

show loopdetect

Syntax **show loopdetect**

Purpose Use this command to display port loop information.

Mode All modes

Chapter 29

SQinQ Configuration

Overview

Introduction This chapter introduces SQinQ commands of ZXR102920/2928/2952.

Contents This chapter includes the following contents:

TABLE 32 TOPICS IN CHAPTER 21

Topics	Page No.
set sqinq-session	227
set port sqinq-session	228
clear sqinq-session	228
show sqinq-session	228

set sqinq-session

Syntax **set sqinq-session** <1-256> **customer-vlan** <vlanlist> **uplink-vlan** <1-4094>

Purpose Use this command to configure SQinQ session.

Parameter

Parameter	Description
<portlist**>**	Port list.

Mode Global configuration mode

Example This example describes how to set SQinQ session 2 customer vlan 1-20 and 24, 26-70 and uplink vlan is 100.

```
set sqinq-session 2 customer-vlan 1-20,24,26－70 uplink-vlan 100
```

set port sqinq-session

Syntax **set port** <portlist> **sqinq-session** <sessionlist> **{ enable |disable}**

Purpose Use this command to apply SQinQ session to port.

Parameters

Parameter	Description
<portlist**>**	Port list.
<sessionlist>	a set of sessions
enable	set port sqinq session enable
disable	set port sqinq session disable

Mode Global configuration mode

Example 1 This example describes how to set SQinQ session 10-20, 24, 26-30 in port 1-5, 7, and 9-10.

```
set port 1-5,7,9-10 sqinq-session 10-20,24,26-30 enable
```

Example 2 This example describes how to cancel SQinQ session 10-20, 24, 26-30 in port 1-5, 7, 9-10.

```
set port 1-5,7,9-10 sqinq-session 10-20,24,26-30 disable
```

clear sqinq-session

Syntax **clear sqinq-session** <sessionlist>

Purpose Use this command to delete SQinQ session.

Parameter

Parameter	Description
<sessionlist>	SQinQ session

Mode Global configuration mode

Example This example describes how to delete SQinQ session 2-7, 9, 12-14.

```
clear sqinq-session 2-7,9,12-14
```

show sqinq-session

Syntax **show sqinq-session** [<1-256>]

Purpose Use this command to display SQinQ session.

Parameter

Parameter	Description
<1-256**>**	SQinQ session

Mode All modes

Example 1 This example describes how to view SQinQ session.

```
show sqinq-session
```

Example 2 This example describes how to view SQinQ session 2.

```
show sqinq-session 2
```

set port bandwidth ingress

Syntax **set port** <portlist> **bandwidth ingress** { { **on rate** <2000-1000000> } | **off** }

Purpose Use this command to set the port credit 802.1p author priority.

Parameter

Parameter	Description
<2000-1000000>	The rate ranges from 2000kbps-1000000, the establishment value is 1M integral multiple

Mode Global configuration mode

Example Set the input bandwidth of port 10 to 3050 kbps.

```
zte(cfg)#set port 10 bandwidth ingress on rate 3050
  %  port:10, the real configured rate is: 3000(kbps)
zte(cfg)#
```

Note: Actual speed is 1M integral multiple, is 3000kbps.

set port bandwidth egress

Syntax **set port** <portlist**>** **bandwidth egress** { {**on rate** <64-1000000> [**burstsize** <4-16380>]} | **off** }

Purpose Use this command to set output bandwidth.

Parameters

Parameter	Description
<64-1000000>	The rate ranges from 64kbps-1000000
Burstsize	egress burst size
<4-16380>	Egress burst size value is 4kbyte to 16380kbyte, the unit is kbyte and 4kybte is

Parameter	Description
	standard

Mode Global configuration mode

Example This example describes the output bandwidth of port 10 to 1000 kbps with burstsize is 100.

```
set port 10 bandwidth egress on rate 1000 burstsize 100
```

Note: The actual speed is 64 integral multiples, is 960kbps.

set port bandwidth packet-type

Syntax **set port** <portlist> **bandwidth packet-type{unicast|nounicast|multicast |broadcast }**

Purpose Use this command to set port bandwidth packet type of ingress direction.

Parameters

Parameter	Description
unicast	Broadcast the unicast packets
nounicast	Broadcast unknown unicast packets
multicast	Group broadcast packets
broadcast	Broad cast packets

Mode Global configuration mode

Example The example describes to set port 10 to broadcast the packet not to carry on the rate limit.

```
set port 10 bandwidth packet-type broadcast off
```

set port trust-dscp

Syntax **set port** <portlist> **trust-dscp {enable | disable}**

Purpose Use this command to set the port to trust IP the DSCP priority.

Parameter

Parameter	Description
trust-dscp	Port trusts IP the DSCP priority, decides the data packet of DSCP mapping QoS profile contains the QoS parameters

Mode Global configuration mode

set port trust-up

Syntax **set port** <portlist> **trust-up {enable|disable}**

Purpose Use this command to set the port to trust 802.1p user priority.

Parameter

Parameter	Description
trust-up	Port trusts 802.1p user priority (UP) decides the data packet by UP mapping QoS profile with QoS parameter

Mode Global configuration mode

set port default-up

Syntax **set port** <portlist> **default-up** <0-7>

Purpose Use this command to set the default priority of a port.

Parameter

Parameter	Description
<0-7>	Default port priority

Mode Global configuration mode

set port queue-shape

Syntax **set port** <portlist> **queue-shape** { { **on queue** <0-7> **rate** <64-1000000> [**burstsize** <4-16380>]} | **off** }

Purpose Use this command to set queue shape of the ports.

Parameters

Parameter	Description
queue-shape	Format reshape
<0-7>	Queue number
<64-1000000>	Limit speed, 64kbps~1000000kbps
<4-16380>	Burst size value is 4kbyte~16380kbyte, unit is kbyte and 4kbyte is tactically approvable

Mode Global configuration mode

set port modify-up

Syntax **set port** <portlist> **modify-up {enable|disable}**

Purpose Use this command to enable/disable ports data packet the 802.1p user priority.

Parameter

Parameter	Description
modify-up	Enable/disable 802.1p user priority

Mode Global configuration mode

set port remap-dscp

Syntax **set port** <portlist> **remap-dscp {enable|disable}**

Purpose Use this command to enable/disable ports remap 802.1p user priority.

Parameter

Parameter	Description
remap-dscp	Enable/disable remap DSCP

Mode Global configuration mode

set port flowcontrol

Syntax **set port** <portlist> **flowcontrol {enable|disable}**

Purpose Use this command to enable/disable the flow control of a port.

Parameters

Parameter	Description
<portlist>	Port list.
enable	Enables the flow control of a port.
disable	Disables the flow control of a port.

Mode Global configuration mode

Example This example describes to enable the flow control of ports 1, 5, 6, 7 and 11.

```
set port 1,5-7,11 flowcontrol enable
```

set port macaddress

Syntax **set port** <portlist> **macaddress** {**on** <1-16>|**off**}

Purpose Use this command to set the MAC address learning number of a port.

Parameters

Parameter	Description
<portlist>	Port list.
<0-16>	The number of learned MAC addresses of the port. “0” indicates that the number is not set.

Mode Global configuration mode

set trunk multicast-filter

Syntax **set trunk** <trunklist> **multicast-filter {enable|disable}**

Purpose Use this command to enable/disable the trunk multicast packet filter.

Parameters

Parameter	Description
<trunklist>	Trunk list.
enable	Enables the multicast packet filter, namely, multicast packets are discarded.
disable	Disables the multicast packet filter, namely, multicast packets are discarded.

Mode Global configuration mode

Example This example describes to set trunk 1 multicast packet forwarding.

```
set trunk 1 multicast forward
```

set port work-mode

Syntax **set port** <portlist> **work-mode {fiber|copper}**

Purpose Use this command to set the port to work mode of fiber/copper.

Parameters

Parameter	Description
<portlist>	Port list
fiber	Set port work mode fiber
copper	Set port work mode copper

Mode Global configuration mode

show port queue-shape

Syntax **show port** <portlist> **queue-shape**

Purpose Use this command to display the queue-shape information about a port.

Parameter

Parameter	Description
<portlist>	Port list.

Mode All modes

show trunk

Syntax **show trunk** [<trunklist>]

Purpose Use this command to display the trunk configuration.

Parameter

Parameter	Description
<trunklist>	Trunk ID list.

Mode All modes

Example This example displays the configuration of trunks 1, 5, 6 and 7.

```
show trunk 1,5-7
```

show trunk vlan

Syntax **show trunk** [<trunklist>] **vlan**

Purpose Use this command to display the trunk in vlan.

Parameter

Parameter	Description
<trunklist>	Trunk ID list.

Mode All modes

Example This example displays the configuration of trunk 1,5,6 and 7 in vlan.

```
show trunk 1,5-7 vlan
```

set port jumbo

Syntax **set port** <portlist> **jumbo {enable|disable}**

Purpose Use this command to enable/disable jumbo on the port.

Parameter

Parameter	Description
<portlist>	Port list.

Mode Global configuration mode

Example This example describes how to set port 1 and 5 support jumbo.

```
set port 1,5 jumbo enable
```

set mirror add source-port

Syntax **set mirror add source-port** <portlist> **{ingress|egress}**

Purpose Use this command to add an ingress/egress mirroring port.

Parameters

Parameter	Description
<portlist>	Port list.
ingress	Ingress.
egress	Egress.

Mode Global configuration mode

Example This example describes how to add the egress mirror of ports 1, 5, 6, 7 and 12.

```
set mirror add port 1,5-7,12 egress
```

set mirror delete source-port

Syntax **set mirror delete source-port** <portlist> **{ingress|egress}**

Purpose Use this command to delete an ingress/egress mirroring port.

Parameters

Parameter	Description

Parameter	Description
<portlist>	Port list.
ingress	Ingress.
egress	Egress.

Mode Global configuration mode

Example This example shows how to delete the ingress mirror of ports 1, 5, 6, 7 and 12.

```
set mirror delete port 1,5-7,12  ingress
```

set mirror add dest-port

Syntax **set mirror add dest-port** <portname> **{ingress|egress}**

Purpose Use this command to add an ingress/egress monitoring port.

Parameters

Parameter	Description
<portname>	A port number or port name.
ingress	Ingress.
egress	Egress.

Mode Global configuration mode

Note: The range of parameter <portname> is 1~16 on the ZXR10 5124, 1~24 on the ZXR10 5124. Switch supports one ingress monitoring port and one egress monitoring port.

Example This example describes how to add an dest-port.

```
set mirror add dest-port 1 ingress
```

set mirror delete dest-port

Syntax **set mirror delete dest-port** <portname> **{ingress|egress}**

Purpose Use this command to delete an ingress/egress from dest-port.

Parameters

Parameter	Description
<portname>	A port number or port name.
ingress	Ingress.
egress	Egress.

Mode Global configuration mode

Note: The range of parameter <portname> is 1~16 on the ZXR10 5124, 1~24 on the ZXR10 5124. Switch supports one ingress monitoring port and one egress monitoring port.

Example This example describes how to delete an ingress dest-port.

```
set mirror delete dest-port 1 ingress
```

show mirror

Syntax **show mirror**

Purpose Use this command to display mirroring configuration information.

Mode All modes

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Abbreviations

Acronyms and Abbreviations

Note: Acronyms and Abbreviations, used in this particular manual are related to IP product.

Abbreviation	Full Name
ABR	Area Border Router
ACL	Access Control List
AD	Administrative Distance
API	Application Programming Interface
ARP	Address Resolution Protocol
AS	Autonomous System
ASBR	Autonomous System Border Router
ASN	Abstract Syntax Notation
ATM	Asynchronous Transfer Mode
BGP	Border Gateway Protocol
BOOTP	Bootstrap Protocol
BDR	Backup Designate Router
CHAP	Challenge Handshake Authentication Protocol
CIDR	Classless Inter-Domain Routing
CLNP	Connectionless Network Protocol
CLNS	Connectionless Network Service
COS	Class of Service
CRC	Cyclic Redundancy Check
CRLDP	Constraint based Routing Label Distribution Protocol
CSN	Cryptographic Sequence Number
CSU	Channel Service Unit
DDN	Digit Data Network
DHCP	Dynamic Host Configuration Protocol
DIS	Designate IS

Abbreviation	Full Name
DNS	Domain Name System
DR	Designate Router
DSU	Data Service Unit
EBGP	External Border Gateway Protocol
EGP	External Gateway Protocol
ES	End System
FDDI	Fiber Distributed Data Interface
GER	General Excellent Router
FEC	Forwarding Equivalence Class
FIFO	First In and First Out
FPGA	Field Programmable Gate Array
FSM	Finite State Machine
FTP	File Transfer Protocol
GBIC	Gigabit Interface Converter
GRE	General Routing Encapsulation
ICMP	Internet Control Message Protocol
IETF	Internet Engineering Task Force
IGMP	Internet Group Management Protocol
IGP	Interior Gateway Protocol
IP	Internet Protocol
ISO	International Organization for Standardization
ISP	Internet Service Provider
LAN	Local Area Network
LAPB	Link Access Procedure Balanced
LCP	Link Control Protocol
LDP	Label Distribution Protocol
LLC	Logical Link Control
LSA	Link State Advertisement
LSP	Link State PDU
LSR	Label Switch Router
MAC	Media Access Control
MD5	Message Digest 5
MED	MULTI_EXIT_DISC
MIB	Management Information Base
MPLS	Multi-Protocol Label Switching
MTU	Maximum Transmission Unit

Abbreviation	Full Name
NAT	Network Address Translation
NBMA	Non-Broadcast Multiple Access
NCP	Network Control Protocol
NIC	Network Information Center
NLRI	Network Layer Reachable Information
NMS	Network Management System
NSAP	Network Service Access Point
NSP	Network Service Provider
NTP	Network Time Protocol
NVT	Network Virtual Terminal
OAM	Operation And Management
OID	Object ID
OSI	Open Systems Interconnection
OSPF	Open Shortest Path First
PAP	Password Authentication Protocol
PAT	Port Address Translation
PCB	Process Control Block
PCM	Pulse Code Modulation
PDU	Protocol Data Unit
POS	Packet over SDH
PPP	Point-to-Point Protocol
PSNP	Partial Sequence Num PDU
PRT	Process Registry Table
QOS	Quality of Service
RARP	Reverse Address Resolution Protocol
RADIUS	Remote Authentication Dial In User Service
RFC	Request For Comments
RIP	Routing Information Protocol
RLE	Route lookup engine
RMON	Remote Monitoring
ROS	Router Operation System
RSVP	Resource Reservation Protocol
SDH	Synchronous Digital Hierarchy
SDLC	Synchronous Data Link Control
SMP	Security Main Processor
SMTP	Simple Mail Transfer Protocol

Abbreviation	Full Name
SNMP	Simple Network Management Protocol
SNP	Sequence Num PDU
SPF	Shortest Path First
TCP	Transmission Control Protocol
TFTP	Trivial File Transfer Protocol
TOS	Type Of Service
TELNET	Telecommunication Network Protocol
TTL	Time To Live
UDP	User Datagram Protocol
VLSM	Variable Length Subnet Mask
VPN	Virtual Private Network
VRF	Virtual Routing Forwarding
VRRP	Virtual Router Redundancy Protocol
WAN	Wide Area Network
WWW	World Wide Web

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